DOCUMENT RESUME

ED 366 723 CE 065 519

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TITLE	The Continuing Education and Training of Agricultural Extension Staff in Namibia with Special Reference to Distance Learning: An Exercise in Participatory Curriculum Development.
INSTITUTION	Education for Development, Reading (England).
SPONS AGENCY	Ministry of Agriculture, Windhoek (Namibia).
REPORT NO	ISBN-1-870447-09-3
PUB DATE	Sep 91
NOTE	52p.; Portions contain small print. Best copy available.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Agricultural Education; *Curriculum Development; *Distance Education; *Educational Needs; Extension Agents; Foreign Countries; Needs Assessment; Participative Decision Making; Postsecondary Education; *Professional Continuing Education; *Rural Extension; Staff Development
IDENTIFIERS	*Namibia

ABSTRACT

A study of the need for inservice education and training among the staff of the Namibian extension service revealed that the service has approximately 100 field staff who have very different and often patchy preservice training but who have acquired considerable experience. Workshops with extension staff members were then held to identify their training needs. On the basis of information gained from observation of supervisory training activities and a training needs assessment questionnaire, a modular comprehensive inservice program was recommended as the most appropriate form of inservice training for the extension staff. The program, which used extensive approaches and methods, included a course on people and organizations in society, and seven agricultural specialist subjects. A program structure based on on-the-job training and distance learning methods was recommended, and a training development plan was drafted. (Appendixes constituting about half of this document provide information on the current training of existing field-level staff and their training needs, a project itinerary, a consolidated job description, the proposed inservice program, a preliminary list of resource centers, pros and cons of on- versus off-the-job training and distance education, module outlines, and a workshop report. Contains 37 references.) (MN)

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ED 366 723

THE CONTINUING EDUCATION AND TRAINING OF AGRICULTURAL EXTENSION STAFF IN NAMIBIA WITH SPECIAL REFERENCE TO DISTANCE LEARNING:

an exercise in participatory curriculum development.

Report of a consultancy mission conducted for the Ministry of Agriculture (Directorate of Training) of the Government of Namibia

by Alan Rogers

Education for Development

September 1991

CE065519

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ISBN 1 870447 09 3

CONTINUING EDUCATION AND TRAINING OF FIELD LEVEL AGRICULTURAL EXTENSION STAFF IN NAMIBIA: SUMMARY OF REPORT

This report is part of the EC-funded programme of development and up-grading of the pre-service and in-service training programme for agricultural extension in Namibia which involves an inter-institutional link between the Directorate of Training of the Ministry of Education and its agricultural colleges, especially Ogongo College, on the one hand and the University of Reading Agricultural Extension and Rural Development Department and Education for Development on the other hand.

The report indicates:

1. **Staff development**, including in-service education and training, are essential for the health of any organisation including agricultural extension services. To invest in new resources (e.g. ADCs) without investing in people is like giving an army new equipment but not training it to use it. Training of existing staff needs to receive commitment from senior staff in extension. The general aim is improved professionalism leading to the greater effectiveness of the service.

2. There is a special need of the Namibian agricultural extension service in that it has inherited some 100 field staff who have different and often patchy pre-service training (often with nothing in extension) though considerable experience (a survey of existing training was undertaken).

3. In-service training needs to be built on **training needs**, either the needs of the organisation or the needs of the individual member of staff. During and between the workshops, several different approaches were used to identify the training needs of these field level staff while training the middle level staff in their duties of supervising the in-service training of these staff. The task was made difficult in that there is no detailed job description - the report provides one which was used for the assessment of training needs but recommends that the Ministry draws one up with the assistance of the middle level staff as soon as possible and keeps it constantly under review. This general survey of training needs should be followed by further assessments of training needs which should be undertaken regionally on a continuing basis as the extension service develops.

4. The training needs revealed were **very varied** - according to the initial training received by the staff, the different regions they are working in and the different tasks they undertake. These training needs lie in all parts of the extension programme - both extension methods and approaches and technical agricultural subjects - as well as in basic education. With reference to the basic educational needs (English, Maths, Basic Science and Geography), the report recommends that these should be obtained from the new provision of the Ministry of Education Non-formal Education Division; the English course will be on-stream by mid-February. The Ministry of Agriculture will need to buy copies of the study materials. In addition, some field level staff will need to learn how to study - materials for this are apparently also available.

5. With reference to the rest of the programme, consideration is given as to whether a blanket course should be provided which all staff should take whether they feel they need these subjects or not. The report recommends that a **modular comprehensive in-service programme** which the field level staff can enter at any point under the guidance of their middle level managers would be the most appropriate form of in-service training. The main elements of this course should be:

a) extension approaches and methods with four main components - understanding extension; analysing the situation; planning and implementing the programme; and promoting effective learning.

b) a course on 'people and organisations in society' with five main components - social change and development; human relations; organisational management and change; women in development; and methods of field level research.

c) agricultural specialist subjects with seven main components - agriculture in Namibia; agricultural economics; agricultural engineering; farm management; crops and soils; livestock; diversification (alternative enterprises)

6. In order to relate this course to the varying felt needs of the existing staff, it is proposed that the staff do not need to take all of these components but, under supervision, to take what they need when they need it. The purpose of making training available in all the major sectors of agricultural extension is to ensure that all the various training needs are covered.

7. The report argues - on the basis of discussions with appropriate persons in Namibia - that the first two of these

areas could be made applicable to all extension services in Namibia, not just to the extension staff of the Ministry of Agriculture (Agriculture; Rural Development; Vets), because the approach to extension adopted in this programme is common to all services. The discussions revealed interest on the part of Community Development in Ministry of Local Government and Housing, Primary Health workers in Ministry of Health, Distance Education and Adult Education in the Ministry of Education, and several NGOs who also have field level staff. To bring in these groups would increase the potential immediate target group from 100 (or 400 in all) in the Ministry of Agriculture to some 700. But there are implications for the speed of introducing the programme.

8. The report considers the desirability of certificating the course; the respondents consulted were almost unanimous that the course should be certificated but the logistical problems remain great. The new programme is designed in such a way that it can be certificated if needed.

9. The report indicates that the need to co-ordinate the various training needs of field level staff working in different regions with the resources available, including the agricultural colleges, calls for a special in-service training Co-ordinator who will undertake the responsibility of providing in-service training as and when needed in a variety of formats.

10. If the Ministry confines this training programme to its own agricultural extension staff, the report recommends that the full course should not be implemented; most of the training needed should be provided by off-the-job training - i.e. short courses nationally or regionally as and when needed. However the report feels that this cannot be satisfactory, nor can it be certificated.

11. If the Ministry decides to include other extension staff and to extend the course to cover the in-service education and training of subsequent new entrants to the profession, then the best mode of training would be on-the-job training, using distance learning methods.

12. During the training workshops for middle level agricultural extension staff, some modules of distance learning were outlined; the different elements were explored and the feasibility of using these materials under supervision discussed. The report recommends that should this format be agreed, the existing field level staff might be allocated some two half days (7 hours) per week of supervised on-the-job training under the guidance of the middle level staff.

13. To obtain existing or to produce new study material for this programme, there would need to be:
a) a managing/overseeing body
b) a production and distribution unit.
The staffing of the latter is not large and it will not be difficult to locate it somewhere acceptable to all the parties involved.

14. The report examines the role of the agricultural colleges, especially Ogongo College, in this programme. It concludes that although they will have a service role in helping to provide some of the in-service off-the-job short courses in response to the training needs identified locally, their more formal approach to training will not serve the experiential needs of the existing field level staff.

15. Should the Ministry of Agriculture agree to proceed with the proposed or other form of distance learning programme rather than with ad hoc training courses, it will have to decide whether to do it for itself or to work with other groups. Two approaches to the latter process are outlined - establishing a Task Force established by the Ministry of Agriculture (an indicative membership is included in the report); or inviting some other body (for example, the Distance Education College core planning group in the Ministry of Education) to undertake the task of producing and distributing the distance learning materials.

16. The report indicates a development plan as follows:

1. Nov-Dec: discussion of the report with interested parties (perhaps by a seminar)

2. Jan: identifying and obtaining copies of distance learning materials in Maths and 'How to Study' to be made available to field level staff for use under supervision; meeting of planning group and decisions about format and administrative arrangements; involvement of Ministry of Agriculture in Ministry of Education's training workshops for new English course for teachers so that this course can be used by those field level staff who need

English

3. Feb: start of English programme using radio: study groups supervised by middle level staff.

4. Mar: first writing workshop for modules of distance learning extension programme.

5. Jun: piloting of these first modules

6. Sep: finalising the study materials; start of production process and issue; beginning of phase II with second writing workshop

7. Jan 1993: piloting of phase II modules

8. Mar: finalising of phase II modules, start of production and issue; start of phase III

9. Jun: piloting of phase III modules

10. Sep: finalising of phase III modules; production and issue by December 1993.

INTRODUCTION

This report is part of an EC-funded project for the up-grading of agricultural education and training in Namibia which includes an Inter-institutional Link Programme between the Directorate of Training in the Ministry of Agriculture and the agricultural colleges (especially Ogongo College) and the Agricultural Extension and Rural Development Department of the University of Reading and Education for Development; it has been prepared by Education for Development on the basis of two training workshops in Namibia which were run in conjunction with that Department.

TERMS OF REFERENCE

This report has been prepared under the following terms of reference:

> The Consultant will:
> prepare in association with the Directorate of Agricultural Training a development plan for in-service training and professional development of agricultural extension staff (and possibly selected veterinary staff) through distance learning methods;
> and submit the development plan and a written report on the findings of the consultancy within four weeks of the conclusion of the consultancy".

This report fulfils that part of the policy of the Directorate of Training in the Ministry of Agriculture which seeks to "design and develop a distance teaching course and a curriculum for training in extension methods".

1. THE NEED FOR CONTINUING EDUCATION AND TRAINING

1.1 It is widely recognised that the continuing development of professional staff is essential in all walks of life, both for the health of the organisation and for the welfare of the individual employee: "the key to the working of any organisation is staff development and dedication to service" (1). It is also recognised that the promotion of staff development is primarily the responsibility of the organisation's management. It is true that in some organisations this is more a matter of lip service than action, while yet others have not realised that their staff need more than the initial pre-service education and training which they have already received in order to achieve improved performance and personal growth, but the general understanding and practice of professional staff development is growing fast.

1.2 Staff development includes (but is wider than) continuing education and training (CET). Increasing importance is being given to continuing and regular in-service training. This has been recognised in the current debates about the future of the agricultural extension service in Namibia: "the issue of training is seen as paramount"...."continuous in-service training of extension field agents should be an inherent part of the extension system adopted....continuous in-service training at all levels in the MAFWARD agricultural and rural development directorates should be provided as a priority....training is an essential resource input for all contributors to the process of research and extension" (2).

1.3 The general principle that learning is lifelong has been reinforced by a number of insights, among which are the following:

a) that initial or pre-service education and training cannot provide all the knowledge, skills and understanding needed for a lengthy period of work: the failure of what has been called the 'banking concept' of initial education to provide an adequate basis for the whole of life has been admitted in all countries in recent years. "No vocational line is terminal... the issue of in-service training of staff should be given as much emphasis as pre-service training"; "in-service training of extension workers is an equally critical issue [as the formal training of extension workers]" (3).

b) the process of working in the field not only converts the theoretical knowledge of the classroom into practical knowledge, but also reveals a range of functions not dealt with in the initial education and training curriculum; this experiential learning calls for further education and training to relate it to the needs of the job.

c) the world of work, like the world of social relationships, is constantly changing; and further in-service education and training is needed throughout the whole of one's working life to meet the challenges of these changes, especially the growth of new knowledge, new technologies and new insights.

1.4 That "high priority" needs to be given to staff in-service education and training at all levels as an important element in an agricultural extension service is apparent to most managing staff ("the in-service training of extension workers is a special concern .. and may indeed be considered an integral part of the extension service per se"), although some remain to be convinced. In-service training in a service such as agricultural extension is part of the process of its investment in personnel which enhances the organisation's and the individual's performance and is of equal importance as investment in such things as transport and Agricultural Development Centres; to provide such resources without providing training is like providing an army with new rifles but not training the soldiers how to use them. The purpose of this continuing training can be stated as to increase the professionalism and efficiency of the staff so that the organisation can more effectively fulfill its tasks. (4)

2. THE SPECIAL NEED OF THE NAMIBIAN AGRICULTURAL EXTENSION SERVICE

2.1 Apart from the general need for in-service CET, the Namibian agricultural extension service is faced with a special challenge at this time. It has inherited from the previous administrations a number (perhaps as many as 100) field level and middle level staff who have received very varied training in agriculture with often little or no training in extension. They are deemed to be "significantly under-qualified for the tasks that they are being asked to perform". The need to bring these staff up to a level of equivalences is recognised as urgent. "There is presently an urgent need for crash in-service courses for most agricultural and rural development staff working in the rural areas, most urgently in the field of extension education... a massive up-grading of existing staff". A "lack of knowledge among existing agricultural field staff about variation in practices of arable agriculture and the motivation for this" has been identified in the communal areas; "a concerted effort in the field of training .. will have to take place". (5)

2.2 Several activities have already been undertaken in this respect, including regional winter schools in 1990 in extension methods, communication and agricultural subjects; a long winter school for field level staff at Ogongo college in 1991; varied once-off training conferences and courses attended by some staff in Namibia and elsewhere in Africa; the promotion of the new English courses provided by the Ministry of Education among the field level staff. The Veterinary service has engaged in more regular in-service training of their staff. Most of these training programmes have been in technical agricultural subjects rather than in extension; and apart from the Vet courses they have been ad hoc rather than systematically planned.

2.3 Any programme of in-service education and training to be built must therefore meet these special short-term needs; but it must also be long-term, "not a once-for-all activity". It should be applicable to the CET needs of future entrants to the profession despite the fact that the new training programme currently being devised at Ogongo College will be substantially different from the varied courses pursued by the existing field level staff, especially in the inclusion of training in extension. [It should be recommended here that the new programme at the college should build into itself the implications of continuing education, that more emphasis should be laid on learning how to learn than on learning facts and on continuing education programmes after the completion of the initial courses]. (6)

2.4 It will be useful at this stage to notice some of the general characteristics of continuing education and training, for these characteristics apply to agricultural extension staff as to other professional groups:

- normally it is voluntary - certainly voluntary involvement in CET programmes results in more effective learning than compulsory staff training events.
- it springs from a sense of need on the part of the trainee as well as on the part of the organisation
- it is closely related to the immediate concerns of work
- it tends to be integrated, life-related and problem-centred rather than compartmentalised, academic and subject-centred

3. ASSESSMENT OF TRAINING NEEDS

3.1 It is widely recognised that continuing education and training, to be effective, must be based on a prior assessment of training needs - either the needs of the organisation or the needs of the individual: "in-service training of this kind [up-grading] will be tailor-made to match the needs of the individual" (7).

3.2 Since "one of the keys to good needs assessment is the adoption of appropriate mechanisms for involving our clients .. in the process" (8), this report is based upon a participatory and consultative process of assessing such needs in the existing field level agricultural extension staff in Namibia:

a) an initial two-week workshop led by the University of Reading AERDD on understanding extension and two further two-week participatory planning workshops on needs assessment were held with up to 17 middle level agricultural extension staff who have been given the responsibility for supervising the in-service training of field level staff; and between these two latter workshops, a field study was conducted by the middle level staff into the training needs of certain of their field staff. The main purpose of these workshops was training for middle level staff but they provided an opportunity to assess training needs with some field level staff using the "learning process approach" (9);

b) direct contact with some 78 field level staff from all over the country during the two lengthy winter schools at Ogongo College with a concentration on assessing their training needs.

3.3 The approach to training needs assessment adopted here was not the identification of training 'areas' (subjects which field level staff ought to study) but the identification of 'gaps' between present performance and desired future performance and an assessment of the reasons for those gaps, whether these reasons lay in the lack of knowledge, skills, understanding or attitudes on the part of the extension workers or in the logistics of the situation - a process which thus distinguished between those needs which called for a training response and those which called for other forms of response (e.g. logistical or resource responses). The processes by which the information was collected for this identification included structured or semi-structured interviews with the staff themselves; observations; questionnaires; group discussions and meetings; and discussions with senior staff and in some cases with the farmer-clients. [See App. B for a list of the problems and the training needs identified by these processes.]

3.4 One major thing stands out from this initial survey, namely the wide range of identified needs: this would seem to based on

i) the very varied nature of the training received so far [see App. A for survey of training received by field level staff];

ii) the varied abilities and interests of the staff;

iii) the varied nature of the farming systems in the places of work, for the regions of Namibia are very different in geographical, climatic, social, political, and cultural as well as economic terms; this "variety of distinct farming systems constitute different target groups or clients which must be distinguished, so that extension services can be tailored to meet their respective needs". (10)

iv) the varied experiences which the staff bring to their work;

and v) the varied nature of the tasks undertaken by the field level staff (including different farming calendars and therefore even different calendars of holidays/leave).

3.5 The author was also fortunate to have been able to visit farming sites in Owamboland, Kaokoland, Namaland, Hereroland, and in the south-central commercial area; to have conducted a training course for field level agricultural extension staff for the Rossing Foundation at their training centre at Okashana; to have visited centres at Brakwater and Neudamm; and to have met and discussed the issues with a wide range of persons in Namibia (see App. C). A short visit to Zimbabwe enabled him to see something of the programme materials produced in that country by Agritex and other organisations [Agritex].

3.6 Nevertheless, it is important at the outset to say that this cannot lead to conclusive results for the future of Namibian agricultural extension service continuing education and training. It is unlikely that anyone can at this stage be definitive in this matter - so much is still unknown, especially about the farming systems in the various regions of Namibia. The conclusions of this report by an outsider must be regarded as provisional and need to be taken up by a local (insider) group or body and interpreted in the light of the needs of Namibia.

3.7 In addition, the identification of training needs is not a task undertaken once for all time; it must be an ongoing process, especially as the extension service in Namibia grows and changes. This task, already begun by the middle level staff, will need to be continued (probably on a regional basis) by the same middle level staff who have begun to receive training in the processes involved but who will need more training and support to follow through this task. (In addition, some process will need to be developed to help the middle level staff to identify their own training needs).

4. PROGRAMME OR PROGRAMMES?

4.1 Once training needs have been identified, the majority of organisations tend to meet these needs in an ad hoc fashion, providing training opportunities as and when the need arises or is identified. There is however a case for saying that CET should be planned so that new entrants may be able to participate in all parts of it no matter what time they arrive. Thus the first dilemma which must be faced is whether, with such a wide range of training needs, one common programme can meet all needs. Should the continuing (in-service) education and training of field level staff consist of a blanket approach - a comprehensive course which shall be taken by all - similar to the approach of the more formal initial pre-service training programmes, or a series of discrete courses and training opportunities to meet specific and often localised training needs?

4.2 There are powerful reasons against providing a blanket course for all field level staff:

a) to ask them to take once again subjects which they feel they have already covered is to demean the training they have already had

b) it ignores the experiential knowledge they have acquired by working in the field, often for several years;

c) it ignores the varied nature of their needs based on their current experience.

and d) it suggests that their own sense of needs is not being taken seriously.

It tends to treat them like children who are assumed to know nothing and need to be taught everything, rather than as experienced adults. The result (as the comments of many of the participants in the Ogongo winter school made clear) is often substantial demotivation.

4.3 Nevertheless, there are also substantial educational grounds for a widespread programme which will cover all the major identified training needs and comprise them into a comprehensive logic frame rather than leave them as a disparate series of localised events. The identified needs fall into all parts of the training programme and are not located neatly in only one or two areas. And there are occasions when staff need to learn something which they do not see the need for at the time, especially if a national extension service is to be built with the possibility of staff transferring from one part of the country to another.

4.4 An approach which seeks to combine the values and avoid the dangers in both approaches would therefore seem to be called for - a balanced programme which allows for the maximum of choice but which opens the doors to and encourages the participants to engage in a more or less comprehensive coverage of the subjects. The programme recommended below seeks to cover both principles.

5. CERTIFICATION?

5.1 The training needs survey revealed a high level of motivation towards further training on the part of the field level staff; and this confirms what others have recognised (11). Nevertheless, most of the respondents with whom this programme was discussed felt that incentives would be needed for these staff to engage in a systematic programme of training. Such incentives could include promotion, salary increments and other forms of recognition for the training achieved.

5.2 One problem which therefore needs to be faced is whether the in-service training programme should be certificated or not. It is important to face this issue early since the answer given may well affect the way the training programme is constructed. Opinion amongst the respondents was divided between a learning-driven programme and a qualification-driven programme. Some saw certification as a desirable form of motivating field level staff or as an appropriate way of rewarding effort. Others saw it as detracting from the primary purpose of the programme, to meet immediate training needs in the performance of extension functions, as exerting inappropriate pressures on the training programme.

5.3 There was some pressure from the field level staff for certification. Several requested the opportunity to proceed to higher diploma and even degree programmes; and the general view among the middle level staff was that some recognition in the form of at least a certificate of attendance should be given to all who complete parts of the programme.

5.4 There are however logistic problems with certification, not least

a) the decision as to which body would validate such a certificate (especially if the distance learning mode proposed below were to be adopted). Several suggestions were made but the consultant does not feel competent to judge between the various proposals

b) the nature and title of the proposed certificate (e.g. Certificate/Diploma in Extension?)

c) the level of the certificate (an Advanced Diploma? or Diploma Stage II?)

d) the amount of recognition it would carry (national, local, leading to employment?)

5.5 It must be pointed out that it has been argued on several occasions (12) that field level staff with existing qualifications "should be given every encouragement to continue their education" to upgrade these and even to seek degree standing. Such career enhancement is a normal form of staff development but it usually carries with it grading and salary implications.

5.6 The most useful solution to this dilemma in the present circumstances may be to say that a qualification should be available to those who wish or need it (including senior staff) through the training programme but that such a qualification would not be required.

6. DETERMINING THE PROGRAMME.

6.1 Current educational insights into curriculum development indicate three basic approaches [CD]:

a) the 'content' approach by which providers of training (and in some cases professional bodies and employers) indicate what subjects the trainees ought to learn - ignorance of these essential pieces of knowledge would demean the profession. This approach tends to concentrate on knowledge as the goal of education and training.

b) the 'product' approach: this is the more normal way of assessing training needs by looking at the functions which the trained personnel will carry out after they have completed their initial training and therefore at the skills needed for these tasks.

c) the 'process' approach: based on the assumption that one cannot learn all one needs during pre-service training, this approach looks at what kind of person will be needed to cope with the challenges of the changing job and the changing world. This curriculum concentrates on attitudes as the learning objectives.

The use of each approach will result in different emphases in the resultant curriculum. All three approaches were used in the participatory curriculum development workshops.

6.2 The results of using the top-down 'content' approach in the CET of agricultural extension workers may be seen in App D part 1. It resembles the traditional college curriculum, for this is the approach most usually adopted in initial education and training in academic institutions, resulting in compartmentalised subject matter which has to be memorised and tested formally. There is some value in adopting this approach for building the curriculum of continuing education, for it may be argued that the in-service training programme should be parallel to the college curriculum, not least to bring the existing field level staff into line with their new colleagues when these start to join the extension service after completing the new programme of initial training being devised for them at Ogongo College. But such training will not necessarily relate to the identified and varied needs of the field level staff.

6.3 The limitations of the content approach for post-initial continuing education and training as well as the desire to build a 'bottom-up' agricultural extension service rather than a 'top-down' service, would point to a greater emphasis being laid on the alternative, the 'product' approach. This approach, based on a description of the tasks which field level staff undertake, would suggest a different curriculum for this programme. There are problems with this approach in the current situation in Namibia, for as yet, despite several calls for an interim one, even though it will need to revised subsequently, no agricultural extension staff has a job description, so the tasks to be fulfilled are uncertain. For our purposes, it was necessary to compile a job description from the evidence before us (App E); and the model of extension adopted in the first workshop provided by the AERDD (see App. E) also provides some guidance to the skills required for the new approach to extension to be adopted in Namibia: "able to enter into dialogue with the people, .. offer useful suggestions and .. help people in finding the means to implement adopted solutions" (13). On the basis of these, a curriculum has been listed (App D part 2) which is seen to overlap but also to be complementary to the college curriculum.

6.4 The 'process' approach led to the compilation of a list of attributes which characterise the professional agricultural extension staff (App. E); and this in turn led to an analysis of the curriculum needed to help the learners to develop these traits. It is important to remember that this approach concentrates as much on the way subjects are learned as on what is learned (for example, learning how to learn rather than learning facts).

7. THE PROGRAMME

7.1 On the basis of these three approaches, a comprehensive in-service training programme has been compiled. See App F

7.2 Basic Education: it is assumed here that the Basic Education programme listed will not be provided directly as part of this programme but that field level staff will be encouraged to take what will be offered by the Ministry of Education and other bodies and where necessary to acquire Std 10 or matriculation in English, Maths, Basic Science and Geography (especially the geography of Namibia, for there is much ignorance of their own country among many field level staff). The new English course for teachers to be broadcast by NBC will be available from about February 1992 and the supporting materials can be obtained by the Ministry of Agriculture and adapted to the needs of the agricultural extension staff. A short training workshop combined with a workshop on adapting these materials (which could be provided by the Ministry of Agriculture or by the Ministry of Education for the Ministry of Agriculture) would be necessary before the commencement of that course. I understand that the Ministry of Education's Non-formal Education Division is preparing alternative syllabi in science, technology and life sciences. Distance learning materials on Elementary Maths were produced (in English) by the Namibia Extension Unit and may be available; again they would need some covering material to adapt them to the specific needs of the participants. The acquisition of these levels of competency should not however be set as a pre-requisite for undertaking the proposed in-service training programme, although the language used would be English and a basic level of competence will be assumed (it is in matters such as this that the guidance of the supervising middle level staff will be particularly useful)

7.3. Two main courses lie at the core of the programme

7.3.1 **Extension.** It is clear from the responses of the field level staff, from the views of the middle level staff and from many other comments about "the lack of training in communication skills needed to enable extension agents to convey information effectively to peasant farmers" (14) that there is a great need for training in understanding and developing skills in extension approaches and methodologies. Some of the field level staff have had the opportunity to learn something about extension approaches; but many have not. Especially there is a need to induct the staff into "interactive and participatory methods of extension" which imply that "the professional attitudes of extensionists must change. This change requires training which is sensitive to the needs of new approaches to extension". Four main areas suggest themselves: a) understanding extension - various approaches to extension and their implications; b) analysing the situation including farming systems research; c) planning and implementing the programme including choosing between various extension methods; and d) promoting effective learning with adults in the community.

7.3.2 A course in the social sciences which may be entitled **'People and Organisations in Society'**. This would examine the social context within which extension takes place - social change and development. The demand for the subjects within this area was very strong indeed both from the field level staff and the middle level staff, especially in human relationships and understanding organisational management, and it was recognised as essential by all the respondents with whom it was discussed. In particular, there was a clearly expressed need to develop better understanding of the role of women in rural society and skills in working with women, and the need for training in newer approaches to adaptive research is also plain. (15)

7.3.3 Around and beyond these lie the specialisms of **Agricultural Studies**. The workshop grouped the training needs into seven major areas - a basic introduction into agriculture in Namibia, including policy matters; agricultural economics; agricultural engineering (a grand title for a course which includes discussion of appropriate technology and animal power); farm management (which covers farming systems); crops and soils; livestock; and diversification (or rural alternative enterprises).

7.4 It is interesting to note that these divisions coincide with the comments of others about the curriculum needed for extension training. The Ministry itself sees the need both for general "up-grading of skills to [enable staff] to perform their tasks.. and additional specialist skills"; others have identified the three main areas of "training/pedagogical methods [extension], advisory/supervisory work [people and organisations in society], and/or technical aspects of agriculture". (16) Agritex in Zimbabwe, one of the most advanced training programmes for extension staff, divide their programme into extension and specialist agricultural subjects.

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7.5 Discussions have been held with Rural Development, Health, Education, Veterinary Services, Community Development and with NGO bodies such as IMLT, NAU, UNICEF and the Rossing Foundation, all of whom have field workers with extension functions, to see if it is possible to make the core part of the programme common to all these extension services; for the need to co-operate in this field has been frequently urged on existing extension agencies. [Other extension services exist who should be invited to join in future discussions, for example Oxfam (UK) has a field based programme in Namibia]. There has been general approval of the model adopted here and a willingness to explore ways in which these courses may be adapted and utilised by these other bodies - for the common elements of extension are widely recognised by all these agencies. This process would increase the numbers of participants in the programme from the start from about 100 agricultural extension workers to some 500-600 or even 700 field level workers with the Veterinary Services and Health providing the bulk of these potential users. These agencies would of course add their own specialisms to the programme, based on their own assessment of training needs of their field level staff, thus enriching the range of choice available to all the participants.

8. STRUCTURE OF THE PROGRAMME

8.1 There are three main models of programme structure - linear, core/option and modular. The linear insists that all students take courses in a set sequence, one after the other, each level getting more complex and advanced. The core/option sets subjects alongside each other, requiring some to be taken by all the students, usually prior to choosing options to meet a more limited range of individual needs.

8.2 The model adopted here is the modular approach (built into what may be called the cobweb) as the most suited to the needs of this situation. A wide range of learning opportunities are thus provided. See diagram in App F. This model has been laid before the respondents listed in App C and has been generally endorsed.

8.3 Should such a model be adopted, it is essential that the programme should be controlled by a co-ordinator who will ensure that the same criteria are applied to all parts of the programme.

8.4 It is not necessary that each module will be the same length or intensity of study; each will be based on its inherent educational nature at the level appropriate for field level extension staff. But each unit would contain an indication as to the number of hours of study which it is expected will be needed to complete that unit; and should the programme be certificated, this statement could be used to indicate the number of 'credits' which such a unit would carry: certification would then be based on completion of a set number of hours of study within a specified period (it is not regarded that an examination is appropriate to experiential learning).

8.5 Participants in this CET programme may start where they like and continue in whatever sequence they like to meet their individual identified training needs; but each module of study will open doors to other modules. Through special links built into each module, there will be a tendency which will encourage the participants to move from the periphery to the core subjects of extension and people and organisations in society.

8.6 The total freedom of choice may need to be limited by several factors:

- the priorities which the various extension services set for themselves at various times will call for immediate and blanket training of all relevant staff;
- the identification of training needs of the organisation will go alongside the identification of individual training needs.

8.7 To enable the field level worker to find his/her way through the cobweb, some guidance will be necessary. It is envisaged that for the agricultural extension service this guidance will be given by the middle level staff who have been charged by the Ministry with the task of supervising the in-service education and training of their field level staff. All the agencies with whom discussions were held were able to identify staff of equivalent level to the agricultural middle level staff (for example, the 'facilitators' in the Primary Health programme) who could supervise (and often already are supervising) the training of the appropriate level of field worker but like the agricultural middle level staff they will need orientation and training in their functions of assessing training needs and supervising the in-service training programme of their field level staff in such a programme.

9. FORMATS OF CET

9.1 Opportunities for continuing education and training may be provided on the job or off the job. The relative merits and disadvantages of both forms as identified by the middle level staff during the workshops are listed in App. G. Placing the emphasis more on staff development than on CET will tend to lead to more on-the-job experiences; placing the emphasis more on in-service training will tend to lead to more off-the-job activities.

9.2 The general view among the middle level staff was that off-the-job training was to be preferred to on-the-job training. Many reasons were given for this, almost all of them practical and logistic although some were educational (wider horizons; attitudinal development etc). Thus areas of study within human relations would, it was felt, best be treated off-the-job in residential group sessions where attitudes could be formed and developed; and some of the specialist technical training needs could also best be met by bringing together the relatively small numbers of staff who most feel their need in these subject areas for short training courses where group methods could be used. But the reasons given for preferring off-the-job training were also personal: not least were lack of confidence among these staff as to their competence to engage in a full programme of supervising in-service training, and the feeling that their time is already more than fully committed to other 'duties'. Nevertheless, the value of on-the-job training was increasingly recognised as the workshops proceeded, even in attitudinal learning which it was felt would need rather longer than residential courses could offer to develop fully, and the general conclusion was that a mixed programme would best meet all needs.

9.3 To the general discussion of the advantages and disadvantages of both formats must be added modern understandings of adult learning. The primary emphasis is now laid on developing and utilising experience as the main way of promoting learning (17), not the transfer of knowledge. It is the necessity of relating all new knowledge and insights to experience which indicates that on-the-job training is more effective in promoting learning than off-the-job courses.

9.4 The lack of experience of on-the-job training and the general desire for off-the-job training suggest that it will take time for on-the-job training to become the norm. It is therefore suggested that the guidance offered by the supervisor to the field level staff would ideally carry with it a regular (six-monthly or annual) appraisal process by which targets for training were set and reviewed with perhaps enforceable dates attached to it. Appraisal systems are now widely seen by many organisations as a major means of staff development; and there are well tried processes of appraisal and of the training needed for conducting these appraisals. The agricultural extension service already has a merit assessment process and this could be built upon to create a fuller appraisal system which will also cover in-service training.

10. REQUIREMENTS FOR CET

10.1 Staff development including in-service training, whether on-the-job or off-the-job, cannot be developed in any organisation without resources. The following are the minimum:

- a commitment by the senior staff to staff development which takes it as a major component of the duties of all their staff (it must be noted that the word 'duties' is commonly applied to the tasks of extension staff but rarely if ever to in-service training, a fact which implies that training is seen to be a lower order of activity than the other functions). A policy statement which would include annual training objectives would help in this respect.
- resources in terms of time which must be preserved from encroachment by other 'more important' pressures. Staff may be encouraged to undertake CET in their own time, but managers serious about staff development will allocate working time to this activity.
- resources in terms of money and personnel.

These conditions must apply to the Namibian extension services.

10.2 Some person (a Co-ordinator) or group will need to be designated to oversee the in-service CET programme as an exclusive or at least major element of their work load. This person or group would determine the required programme in consultation with other interested parties and set about implementing the programme, identifying the training resources available and willing to provide each component of the course. It is recommended that such a person or group be identified and resourced as soon as possible.

10.3 In addition to these requirements, the specific requirements for off-the-job training would seem to include the following:

- trainers and training agencies available with resource centres (a preliminary list of such bodies in Namibia was drawn up by the middle level staff during the workshops and is included in App H; it can clearly be added to from within the agricultural extension service, and when the facilities of all the other extension services are added, the scale of government and NGO resource centres available will be seen to be substantial). Such training centres need to be responsive to demands from the field rather than deciding on and providing programmes in a top-down fashion.
- some co-ordinating agency which will bring together the varied demands identified by middle level staff in the various regions to ensure that the training programmes are both viable and sequenced appropriately; this is surely one of the roles of the in-service training officer or group (10.2)
- some direct link between the middle level staff who are identifying the training needs of field level staff and the training agencies who will provide the learning opportunities to meet those needs to ensure that the programmes are matched to the direct needs of the field level staff
- some form of collaboration between the middle level staff themselves and between them and the other extension departments so that the provision to meet similar training needs which may be identified in different regions may be co-ordinated
- some planned follow up to each element of off-the-job training to be delivered to the supervisors. Such follow-up could take the form of written or oral reports on the training received together with plans of further action arising from the training. Without such follow up, the effectiveness of each component of off-the-job training will be greatly reduced.

10.3 In addition to the general requirements, the specific requirements for planned on-the-job in-service training would seem to include:

- the availability of experts and a budget to cover the costs of such localised training
- guidance offered to field level staff as to the forms of in-service training appropriate to their needs and supervision of the staff development programme (to be provided by the middle level staff)
- clear and public authorisation of middle level staff to undertake these responsibilities with protection from pressures from above which will interfere with these duties
- time without interference. It has been suggested that to meet the immediate needs of the agricultural extension service, over the next two or three years two half days (7 hours) per week could be allocated to supervised on-the-job training. To answer the challenge that more important duties would suffer if this time were removed from field work, it must be pointed out a) that off-the-job training takes field level staff away from the field, and b) that training is as important as field work; field work will not be effective without training. The experience of banks and commercial organisations which are often closed to customers at specific times "for staff training" show how seriously other professions take in-service CET.
- the availability of training materials

10.5 The preparation of distance learning materials to be used flexibly in on-the-job training programmes would seem to meet all the requirements of

- providing practical and experiential learning rather than theoretical and more remote courses
- providing for the wide variety of localised and individual learning needs
- yet providing for the general framework which must underlie all purposeful in-service training.

11. DISTANCE EDUCATION AND TRAINING

11.1 The main advantages and disadvantages of distance education and training as identified by the middle level staff during their workshops are listed in App. I. The most important would seem to be

- the need to relate experience to theoretical knowledge; this has been stressed time and again during the current debates about the future of the agricultural extension service in Namibia (18).
- the need to relate training to the activities and needs of individual field level staff in the field.
- the flexibility to relate the learning to the appropriate time when the need is most urgent or when the practical time for learning is most suitable (rather than most convenient for the trainers) and to adapt the pace of learning to the required subject matter and the needs and abilities of the learners; distance learning materials will be always available to the learners.

11.2 There is an economy in distance education compared with residential training provided it is planned and executed on a large enough scale; but for small scale programmes, the costs of preparing and distributing materials exceeds those of short courses.

11.3 It is thus proposed that most (though not all; see 9.2 above) of the above programme should be provided in the form of distance learning. The extension and social studies modules would most appropriately fall into this category since they will apply to all extension services, but more of the specialist subjects will more appropriately be offered through face-to-face programmes.

11.4 The requirements for distance learning materials are now well understood as they have been practised widely throughout the world and in many different sectors of public and private enterprise. The programme suggested here would thus provide:

11.4.1 study guides: these would be in pack form rather than more formal bound books/booklets, so that the individual sheets could easily be updated when necessary;

11.4.2 These study guides are of one of three kinds: either they are complete in themselves, or they provide a guide to the study of a set textbook, or they are accompanied by specially created study materials - compilations of extracts from texts and articles which can be placed in the hands of the students (it is very unlikely that many field level staff will have access to adequate library facilities).

11.4.3 Some of this material would need to be specially prepared, though some will already be in existence either within Namibia (services such as the Health programme [Health], IMLT, Rossing, the Namibia Extension Unit and other bodies have already produced much study material in their specialist areas) or within other Commonwealth countries (for example India with its Rural Development modules produced by the Indira Gandhi National Open University, or Agritex in Zimbabwe) and may be identified with the assistance of bodies such as the Commonwealth of Learning [COL] and adapted to meet the requirements of Namibia. In both cases, writers' workshops need to be held; it would be desirable that some middle level staff should attend these workshops to ensure that they pursue consultative and participatory processes.

11.4.4 set activities to be undertaken under supervision; these would be of a practical nature, directly related to the field work activities of the extension staff. Participants in this programme would be asked to look at their surrounding environment and local practices in relation to various aspects of their studies e.g. diseases and pests and local treatments for these; or local farming systems; or the local community; or their own extension activities etc

11.4.5 assignments to be marked by outside 'tutors' (who could be the study guide writers or the middle level staff or other persons). Again, these would not be academic-type essays but directly related to the work the field level staff are doing - reports on events, adaptive research, surveys of the locality etc. The purpose of both the activities and the assignments is to encourage the learners to reflect critically on what they are doing in the light of new knowledge and new ideas and to try out new approaches.

11.4.6 supporting materials where appropriate, usually in the form of broadcasts, videos, films or radio cassettes. The provision of a special unit to produce such materials for this programme would seem unnecessarily expensive since much material already exists and facilities for further productions may also be accessible in different parts of the country. Preliminary discussions with NBC (who already produce health and agricultural programmes) indicate that that organisation would be prepared to assist with the preparation and dissemination of both radio and television materials provided adequate resources were available, and experience elsewhere suggests that video material relating to extension is often widely appreciated by the general viewing public as interesting in its own right. The videos would not normally be made available to individual learners but be shown to group meetings at the ADCs and other centres (see 11.4.7 below). Radio cassettes were considered by some respondents as the main form of supplementary material needed, by others as inappropriate.

11.4 .7 contact sessions are seen to be very important for motivating participants, for developing positive attitudes towards the training programme through group work, and from time to time for imposing some form of discipline on the learning process. Appropriate staff duly trained to meet students and to deal with their enquiries and to support their learning will be needed for this purpose; once again, they could be the middle level staff. These contact sessions can be provided locally through the newly proposed ADCs and similar centres (for example the proposed 'community learning centres' suggested by the recent report on distance learning in Namibia produced by the International Extension College) although the danger that these events might convert themselves into regular staff meetings needs to be recognised!; or they could be provided through annual winter schools for all students on a national basis (this was felt to be too large to be fully effective); or through a mixture of both and indeed other events. What is clear is that the staff who will conduct such contact sessions will need special training and orientation, for the conduct of such meetings (as experience of distance education has clearly demonstrated elsewhere) will need to adopt a more responsive (listening to and answering questions from the students) mode of relationship to the students than the traditional (lecturing) mode of the academic institution.

11.5 It will be necessary to provide a preliminary study module on **learning how to study**, for some of the extension staff will have been away from formal study for some years and their skills of formal learning will need to be developed further. Such modules already exist and may be bought in fairly easily; one such is the How to Study course written by Selma Hamunyela and Julia Jeremiah for the Namibia Extension Unit which may be available in Windhoek. It will have to be adapted to the special needs of agricultural extension. Learning how to learn is vital to the effective fulfilment of the role of extension agent: "field staff should be encouraged to borrow books and other documents both as a function of self improvement and also of extension whereby the extension agent is able to seek out information on specific subjects to meet the demand for information from farmers [and other clients]. In the future it may be that the role of extension agents in seeking solutions and information directly from various sources for themselves will become increasingly important". (19)

11.6 It is the view of all the respondents that with outside assistance all these requirements can be provided for the Namibian extension services; the co-ordination and oversight of the programme and the training of those who will prepare the written materials may need to be acquired from outside.

11.7 The Ministry of Agriculture thus first needs to decide whether it wishes to pursue the idea of distance education for the on-the-job training of its field level extension workers, or to provide a series of residential workshops regionally or nationally to achieve the same objective. Should they decide to concentrate simply on the shorter term task of up-grading the relatively few existing field level staff, then distance education is not likely to be the best way forward - it will be too expensive and will take too long to develop. Should they seek to widen the target group to include other extension staff and to lengthen the period of continuing education for several years by applying these programmes to new entrants to the extension staff after completing their initial college-based courses, then distance learning methods are clearly the best way forward.

12. PROVIDING AGENCY

12.1 Some agency will be needed to oversee and manage this programme. These two tasks could be combined but it is likely that there will need to be a separate overseeing committee or monitoring group of some sort and secondly an implementing unit. It is hoped that this programme will be acceptable to a variety of Ministries (see 7.5 above) and therefore the arrangements for oversight and for management need to be acceptable also.

12.2 The **monitoring group** would undertake the following tasks:

- ensure the fully representative nature of the group itself
- survey and finalise the programme curriculum in relation to the special needs of Namibia and the participating bodies
- decide which elements would be offered in on-the-job mode and which in off-the-job activities and what role the various providing agencies (including the agricultural colleges) should play
- set up the implementing arrangements
- identify and commission writers
- determine the phasing of the programme
- decide concerning certification or otherwise of the programme

12.3 There would seem to be three possible ways forward:

a) The Ministry of Agriculture could go ahead on its own planning and implementing the programme for its existing field level workers. This has been urged several times during the current debates (20), especially as the Ministry has established its own Directorate of Training. The implications of this are likely to be that the materials would be produced and used solely by the staff in that Ministry (say some 350) for it is unlikely that other extension services would feel willing to use what they had no involvement in planning. On the other hand, following this route would enable the programme to be implemented relatively speedily

b) The Ministry of Agriculture could take the lead and invite the collaboration of other extension sectors by setting up a special Task Force or Liaison Committee (21), inviting the other users to join this body and fulfil the functions listed above.

During the consultations, the following agencies have indicated that they would be willing to participate in such a planning and monitoring group:

Academy Distance Teaching Unit
IMLT
Ministry of Agriculture: Agricultural Extension; Rural Development; Veterinary Service
Ministry of Education: Distance Education
Ministry of Health: Primary Health Programme
Ministry of Local Government and Housing: Community Development
NAU
NBC
Rossing
UNICEF

Clearly the constitution of this body must be decided by the Ministry itself, but there is a great deal of goodwill towards the idea. In a bottom-up organisation such as is desired, it would be very desirable for some middle level staff and even some field level staff to serve on this planning group.

This, if successful, would widen the target group but would be likely to slow down the process.

c) The Ministry could invite the Ministry of Education Distance Learning Unit to arrange for the planning and administration of the programme, perhaps through the core planning group of the proposed College of Distance Education in the Ministry of Education [Concept] which might be invited to convene a special sub-committee or other body to oversee this programme. Discussions with that Ministry indicate that they would be willing to explore such a proposal; they have suitable facilities for administering such a programme; and there are signs that such a proposal would be acceptable to the other users as the task is seen to be an educational task.

This matter must be decided by the Ministry of Agriculture.

12.4 The programme would need an **Administrative Unit.** One thing is clear from our discussions and from previous experience - the unit which provides and manages should be a separate and distinct unit, not simply a task given to agencies which have other and to them more important things to do; and it should be presided over by a person whose sole responsibility this task is. This unit, for the number of potential 'students' engaged in the programme, would need to consist of:

a) one academic Director whose task would be to control and advise on the production of the study guide and other materials, and deal with the other academic matters
b) one person to act as registrar
and c) one clerk.

The unit would need to have facilities for its sole use and not rely on others for the following equipment:

- production facilities for the study materials, preferably desk-top publishing
- reproduction facilities, especially photocopier
- despatch facilities
- its own communication facilities e.g. telephone and fax

12.5 Among the possible options are:

a) a separate unit attached to one of the existing agricultural colleges such as Ogongo College. This was felt to be undesirable by almost all the respondents since the unit will inevitably be a subordinate interest of the college; it is important to remember that the distance learners are not present to demand attention while the full-time college students are, so the Director of the Distance Learning programme is the sole guardian of the interests of the distance learning students. Nor would the proximity of this programme to a more formal approach to agricultural training enhance the experiential form of the in-service training programme; equally experience suggests that it is unlikely that the existence of the distance education unit will affect the college curriculum towards more non-formal approaches.

b) the proposed College of Distance Education in the Ministry of Education, although this is unlikely to be functional for some years, [Concept] could find some suitable location for this administrative unit.

c) the administrative unit might be located either in the Directorate of Training of the Ministry of Agriculture or in some other Ministry

d) the task could be farmed out to one of the NGOs (IMLT, CCN, the Rossing Foundation and the Namibia Development Trust have been mentioned in this connection)

There may well be other options.

13. IMPLEMENTATION

13.1 It may be that this programme is felt to be too elaborate and too ambitious for what is needed immediately. Should the intention be simply to train the existing agricultural extension field level staff, then to invest in distance learning would not seem to be wise; it only becomes worthwhile if a larger number of participants are to be included and if the programme is designed to be run for several years. Instead the Ministry should concentrate on an integrated programme of short courses, to be run regionally at the request of the regional middle level staff and where appropriate using the facilities and staff of the agricultural colleges such as Ogongo College. These colleges should be responsive to expressed training needs and attempt to make their programmes as practically oriented as possible. The colleges would of course need additional resources for this work, and they should seek to build up experience and expertise in the very different approaches to teaching in post-experience courses. But it is unlikely that such an approach can meet the very real needs of this and the next generation of extension staff.

13.2 If however it is decided to procede with the preparation of such a distance learning programme for the production of appropriate teaching-learning materials for the on-the-job training of field level (agricultural) extension staff, the following steps would be necessary:

13.2.1 A Director of Studies should be appointed. This person may hold this post with that of Co-ordinator of In-service Training as recommended above in 10.2 or separately. It would be useful in the first instance if this person were assisted by some consultant provided by one of technical assistance programmes such as FAO/UNDP or CFTC, and the personal development of this person could be advanced under the institutional link programme by visits overseas.

13.2.2 The first modules to be used need to be identified. Some will already exist (see above 11.2.3); others will need to be specially written, so that potential writers need to be identified and trained in a workshop on the preparation of distance learning materials. It must be remembered that the writing of modules takes a long time. Even where study materials already exist, it will take some time to locate them and adapt them to meet the needs of this course. The materials will need to be piloted (pre-tested) and revised into a final form. While the initial process and training can be begun in a writers' workshop, the writing would need to be supervised. It is suggested that an outside consultant trainer be brought in to work with a Namibian counterpart (probably the same person as mentioned in 13.2.1) who would continue to supervise the writing process after the training workshop. This process would also prepare the study materials and set the activities and assignments.

13.2.3 Supporting materials would have to be identified or if necessary prepared.

13.2.4 Those who would supervise the field level staff, mark the assignments and conduct the contact sessions would need orientation and training. This could only be done after the first modules have been prepared.

13.3 The implications of this process is that if the programme were to start immediately, the supervising group could not meet before January 1992; the first writers' workshop would be held in March 1992 and the first materials would be available by September 1992 at the earliest. It is however likely to be rather longer than this in fact.

13.4 The intervening time need not be wasted; the following steps could be taken:

- a learning how to learn course could be acquired from some other body and be made available to the field level staff; a training workshop would be needed to set this up and running
- those field level staff who need English could embark on the English training course being run by the Ministry of Education; this would involve:

- purchase of the materials;
- participation in a workshop for middle level staff in January or early February to adapt these materials, add assignments and to train these staff in the use of these materials (it is envisaged they would be used in groups under the supervision of the middle level staff)

- more off-the-job training programmes could be organised. The same caveats will apply to these as are listed above (13.1); they must not be like the Ogongo College winter school but more like the extension programmes themselves: one cannot teach effectively participatory extension in a non-participatory way! They should be learner-centred, experiential, linking theory with practical work, with "a stress on learning by doing and practical understanding", using active, not passive, learning methods. Their subjects could be related to the units taken for preparation for the distance learning programme and their subjects and timing could coincide with the preparation of materials (the writers' workshops and the piloting of the materials) so that the preparation of these materials could be undertaken, like this curriculum development exercise, in a participatory way.

14 CONCLUSION

14.1 It is necessary to repeat that there is a great need in every organisation for continuing education and training as part of staff development; it must be taken seriously. It must be experiential and participatory, using a mixture of on-the-job and off-the-job training modes. The above programme meets these requirements

14.2 It is however also necessary to warn that however good the training is, if no attention is paid to the other barriers to improved performance which the field level and middle level staff and others have identified, for example the lack of "a clear rural development policy", failures in communication and support structures at regional and national level, and logistical problems such as transport, then there will be no improved performance (22). When this happens, there is a tendency for managers to blame the training as ineffective. Training on its own will not result in enhanced performance; the extension services in Namibia must pay attention to resourcing the programme adequately as well as to training if they wish the programmes to become more effective.

DEVELOPMENT PLAN

Subject to the immediate approval of the Ministry of Agriculture to the proposal, the following stages should be possible:

1. This report should be discussed in a **seminar** on the continuing education and training of field level extension staff with all interested bodies, to be held in November or early December.
2. Appointment of **Director of Studies of In-Service CET** and consultants.
3. January 1992: appointment and first meeting of Task Force, Liaison Committee Group or **monitoring group** (for agenda see above 12.2); locate potential writers and make arrangements for first writers' workshop: one visiting consultant
4. Establishment of **Administration Unit** and appointment of staff
5. Start of **Basic Education** programme:

a) purchase of English Language Course materials;
b) purchase (if available) of the Learn How To Study materials
c) purchase of Maths course from National Extension Unit (if available)

6. January: **training workshop** for middle level staff to adapt these materials and train in the use of them (in the case of English Language, this workshop would be held at the same time and in association with the teachers' workshops being run by that project).
7. February: beginning of the **English Language Course** by radio for those field level staff who need English under supervision; beginning of the **Learn How to Study** course for other field level staff.
8. **Distance Education Programme in Extension: Phase I:**
   - 8a) March 1992: **first planning and writing workshop** (three weeks): six modules in all, Understanding Extension and Situation Analysis: Understanding Development and Human Relationships: Crop and Soil Science and Livestock [other sectoral modules if needed]. Programme of both off-the-job training events and distance learning materials (including contact sessions) to be planned for each module. [Note: should modules be 'bought in' from other agencies, they will still need adapting to the Namibian situation and to this course, and will still need to be piloted]. At the same time, short workshops to be held for middle level staff and some field level staff in these subjects so that they may be able to contribute to the preparation of these materials. Two visiting consultants with one or two Namibian counterparts.
   - 8b) March-June 1992: writing of the modules under supervision of counterparts
   - 8c) June 1992: workshop to finalise draft modules and arrange for piloting; to decide on the production of supporting materials; to decide on arrangements for contact sessions and supervising staff. Parallel workshop to train supervising and contact staff; planning of Phase II. One visiting consultant
   - 8d) June-September: piloting of draft modules

9. **Phase II:**
   - 9a) September 1992: workshop to finalise and prepare first six modules for general release; at same time, planning workshop for on/off-the-job components of second six modules: Planning the Programme; Promoting Adult Learning; Women in Development; Research; Agriculture in Namibia; Farm Management; [other sectoral modules if relevant]. More training workshops for field level and middle level staff. Two visiting consultants.
   - 9b) September 1992-January 1993: writing of second tier modules and piloting under spervision of counterpart
   - 9c) January 1993: workshop to finalise second batch of draft modules; review of progress. One visiting consultant

10. **Phase III:**
   - 10a) March 1993: third planning workshop for final batch of six modules: training workshop for field level and middle level staff. Two visiting consultants
   - 10b) March-June: writing of modules under supervision of counterpart.
   - 10c) June 1993: workshop on the production of supporting materials. One visiting consultant
   - 10d) June-July: piloting of final batch of modules
   - 10e) September: final workshop: finalise last batch of modules; finalise supporting materials; further training of contact and supervisory staff; review of programme. Two visiting consultants.

11. The programme should allow for an evaluation preferably by an outside consultant.

NOTES:

1. Nepru p A25
2. Nepru pp. vi, ix, A20, B7, 42, 53 etc.
3. WUS pp 4, 35; Nepru p. B45
4. Nepru pp 34,39; PP p.4
5. WUS pp. 2, 12, 18, 35; PP p.3; Nepru pp. v-vi, A34.
6. Nepru p. B8; Prospectus
7. PP p.7; Wake.
8. Nepru p. 6
9. Nepru p. B44
10. Nepru p. A15, 20
11. WUS p 16: "there is an eagerness to develop oneself professionally and participate in up-grading courses". The responses to the questionnaire survey (App. B) clearly revealed a high level of motivation on the part of some field level staff.
12. Nepru pp. vi,vii, A34, B53,54; WUS p. 35
13. WUS p. 17; Nepru pp A20, 34; Rolls.
14. Nepru p.ii; WUS pp 14, 18; PP p.5
15. See WUS pp. 4, 14, 18; Nepru p. ii
16. WUS p. 47; Policy p.35; PP p.7; Agritex programme.
17. See for example, P Jarvis, The Social Context of Learning Croom Helm 1987.
18. e.g. WUS pp. 4,6, 34
19. Nepru p. A35
20. WUS p. 7 "the Directorate of Training will be responsible for all in-service training related to agriculture"; Policy p 38, "co-ordinating all in-service training of officials" of the Ministry, etc
21. WUS p. 42
22. e.g WUS pp 12, 19.

APPENDIX A: CURRENT TRAINING OF EXISTING FIELD LEVEL STAFF

A questionnaire survey was conducted with a total of 78 field level staff while they were at Ogongo College concerning their training and their felt training needs. 72 valid responses were received (though not all field level staff answered all questions). The results of this survey are as follows:

Schooling: 5 received schooling outside the country, the rest in Namibia. Half of them have Std 10 or above: 6 left school at under standard 8; 20 with Std 8, 3 with Std 9, 32 with Std 10, 4 with matric.

Most studied some science and English at school but the levels achieved were not always high; less than one third have any maths: 41 studied agriculture at school, 17 science, 28 maths, 66 English and 49 biology.

College: 7 (one tenth) never attended college of any sort; only one of these indicated that he had received departmental training of five months.

43 of the rest attended college in Namibia, the rest outside the country (Cuba 1, Czechoslovakia 3, Germany 2, RSA 8, USSR 1, Zambia 5).

Several took correspondence courses from various institutions.

Just over half of them studied at college level for three years or more:

	in Namibia	outside
two years:	23	3
three years	18	12
more than three years	0	5

Virtually all those who replied indicated that they had a diploma, not a certificate:

Certificate	0	1
Diploma	32	12

The courses studied at college were very varied; 26 claim to have studied extension as a subject at college.

Post-college training: two thirds have received some in-service training while in office; one third (23) say they have received no training since leaving school or college. Of the rest, 13 say they attended one course, 10 two courses, 10 three courses, 4 four courses, 3 five courses and 4 others indicate they have attended some courses, number unspecified.

17 of these courses were outside the country: RSA (6), Zambia (4), Zimbabwe (2), Botswana, Ghana, Hungary, Italy, Tanzania

Of the rest, most attended the former winter schools and orientation training; others subjects such as surveying, artificial insemination, courses for supervisors, judging animals, animal health and livestock breeding, agronomy, agricultural engineering, public administration, karakul sheep. Six attended courses on extension. Courses were supported or provided by many bodies including IMLT, Rossing, ILO, NAU, UNDP and the Veterinary Service.

When asked, only four indicated that they had volunteered to attend these courses.

Experience: 13 were new entrants into the profession; another 19 had less than five years experience. But half of the respondents (36) had more than five years experience - 16 up to ten years, 15 up to 15 years experience, and five between 16 and 23 years experience.

Self-improvement: Only six said they did not read regularly in any language. Almost all of them said they read agricultural material regularly; especially Farmers' Weekly with Agriforum, the Extension Handbook, Extension News, Agricultural Weekly and other works being cited. Books were mentioned by several (on vegetables and livestock especially), including M Adams, Agricultural Extension in Developing Countries. A great desire for reading material was expressed but most claimed it was difficult to obtain material.

Most listened to the radio or watched agricultural programmes on TV regularly. The radio agricultural programmes in the various communal areas were the most popular; NBC's 'Agriculture for All' drew a regular audience, as did 'Agricultural Focus', 'Agriculture Forum' and 'Let's Farm'.

Fifty indicated that they attended agricultural meetings from time to time, several of them many such meetings. Meetings of NAU topped the list, followed by karakul meetings, Agra Day meetings, the Reheboth Agricultural

Study Group and other regional agricultural meetings. Agricultural Shows accounted for many meetings, and visits to research stations also occurred in the lists.

Twenty six of the 72 were members (several of them long-standing members) of agricultural bodies; some were members of several such bodies. Local or specialist farmers associations, farmers unions, farmers leagues, vegetable production groups, regional agricultural bodies, the NAU, breeders' associations, local development committees all featured in the list.

List of training areas which they felt were inadequate
(in order of number of references):

extension 20
animal husbandry 11
diseases 8
farm planning 7
demonstrations 6
vegetables 5
horticulture 4
water supplies 4
engineering 3
small stock 3
credit 3
soils 1
crop production 1
fruit growing 1
agro-forestry 1
fertiliser application 1
computers 1

APPENDIX B: TRAINING NEEDS

The following lists of problems and of training needs have been compiled through several different processes - interviews with field level staff at the college and in their work situation; through consultation with more senior staff; through observation. They are general lists - each one of these problems and needs is felt by one or more field level staff. We have used these lists as a working base for the construction of the proposed training programme, but a fuller training needs assessment should now be conducted on a regional basis by the senior staff in those regions.

I. PROBLEMS OF FIELD LEVEL STAFF:

A. **List of problems** identified by 47 field level staff (with ranking of each problem on a scale 1-5)

1. Lack of inputs (fertilisers, seeds etc) 135
2. Distance between farmsteads 134
3. Lack of water 125
4 Lack of transport 122
5. Lack of support from head office 118
6. Poor communications between extension worker and head office 115
7. Farmers fear of taking risks 111
8. Lack of marketing facilities 108
9. Lack of accommodation and office space 106
10. Too few extension workers; too many farmers to be reached 101
11. Poverty of farmers 98
12. Lack of land available with increasing population 96
13 Land ownership patterns 95
14 Lack of clear objectives for extension service 94
15. Illiteracy of farmers: communication with illiterate farmers 91
16. Lack of knowledge and skills to cope with changing society 83
17 Farmers' perceptions of extension workers 72
18 Farmers' traditional culture and values etc 70
19. Lack of experience of extension workers 64

B. Similar list for 28 field level staff:

1. Lack of extension workers 101
2. Lack of transport 96
3. Lack of teaching aids 84
3. Poverty of farmers 84
3. Lack of infrastructure for grazing management (eg water/fencing) 84
6 Communal system of grazing and herding 80
7. Lack of inputs 77
6. Long distances from water sources 77
9 Alcohol abuse 74
10 White dominance in MAWARD 67
11 Traditional approaches of farmers 66
11 Communication with farmers 66
13 Lack of markets 65
14 Lack of clear job description 63
14 Lack of clear national agricultural policy 63
16 Poor disease control 60
17 Alternative and competing duties 57
18 Communication with senior officers 48
19 Interference by (political) leaders 46
20 Old farmers 44
21 Poor coordination with NGOs 36

II TRAINING AREAS AND NEEDS IDENTIFIED BY FIELD LEVEL STAFF (listed in questionnaire - in order of strength of request)

extension
agricultural economy
vegetables
crops
communicating with farmers
how to reach farmers
agricultural planning
animal health
livestock
home economics
pests and diseases
English
farm management, business studies
financial records
soil conservation
pastures,
solving farmers' problems
research
extension with women
new technology, engineering, water management
rural development
maize
mahangu
cotton
illiteracy
agro-forestry
fruit

Several said they wished to take a Diploma/degree course.

"Training is very important for us because we are very poor in English; we want to get more courses because we have got many experiences"

"I would like to go for further training".

"I would like to attend more courses in crop and vegetable production to refresh my memory"

"There is a need for in-service training in future and more chances for further studies in the field of extension work".

"I need some in-service training to dealing with practical work, because it is refreshing my mind".

"Officers should be trained in subjects methods they can use in their field of work etc. In the south, animal production, grazing systems and engineering would be more useful than crop production".

"I would like very much to be trained in animal production"

"We need in-service training to deal more practical but not more theory".

"For me this course is needed and very important".

"I would like to undergo another several courses of planning programmes and how to work with farmers progressively and productively".

"In-service training is very important - it is necessary to get in-service training per annum".

"Training which I received is not enough for training adults".

"Yes, if I am offered I am prepared to take some other subjects like technology, maize crops and planning".

"I would like to learn more in training for adults".

"I would like to study further at the Agricultural Research Institute. But no bursaries and place. Should the Government help?"

"I would like to have training in Home Economics, as since I started working, I have not training".

"To me, I would like to say to the Ministry or Government that I am waiting day and night to be taken to any training. I have been in this Ministry as from 1981 up to today without any training. I am not highly educated but to my knowledge I think I can do even six month training to uplift my knowledge. Wanting to hear anything from the Ministry".

"The training I have received so far is insufficient. There is a need to receive more in-service training courses in order to improve my knowledge in agricultural extension services".

"My training was poor. There was lack of materials. Poor on information of extension worker".

"The training I have received so far was very useful to me. However there's a need for an intensive in-service training that could enrich me with skills that would help me find solutions to farmers' questions".

"In-service training must be given continually both theory and practice, and mostly in central area for better attendance. Extension officers must be sent abroad for a period of about 1-3 months to improve their language in communication as well as to bring new ideas from outside".

"All of my agricultural training was in Afrikaans. I would like to have more training in English like this training".

"I would like to receive more training concerning extension and not so much subject matter of no relevance or very little relevance as we are having at present".

III. TRAINING NEEDS OF MIDDLE LEVEL STAFF WHICH THEY IDENTIFIED

Extension:

- decision-making
- understanding culture and tradition; rural development and sociology
- how to supervise training of field level staff; leadership; relations with staff; merit assessment system/appraisal; communication with field level staff
- curriculum of training
- programme planning skills and attitudes; extension management, administration; record keeping
- teaching adults
- monitoring and evaluation
- self-learning
- collecting and storing data
- development of self-confidence
- collaboration with other agencies
- communication with farmers; motivating farmers.

Agriculture

- irrigation methods
- farm planning
- resource management and conservation

Others

- English

APPENDIX C: ITINERARY

The consultant took part in (1) an initial training workshop at Ogongo 1-13 July, and visited several sites in Owamboland. In addition, a week was spent in the Windhoek area 24-28 June and a visit made to Neudamm College.
(2) August 5-16 training workshop at Ogongo College
(3) September 10-20 training workshop at Ogongo College; field visit to Kaokoland

WINDHOEK 23-28 September
Monday 23 September
morning: P Vigne; A Shiweda, Directorate of Training, Ministry of Agriculture
afternoon: Professor David Macharia (in place of Mr Mthoko) Distance Education Division, Ministry of Education

Tuesday 24 September
morning: Jurgen Sievers. Distance Teaching, The Academy
Mr A van Rooyen, Institute of Management and Leadership Training
afternoon: Dr Brian Gruss and Dr Roger Paskin, Ministry of Agriculture, Veterinary Service
Mr Nahum Gorelick, Namibia Broadcasting Corporation
Piers Vigne, Directorate of Training, Ministry of Agriculture

Wednesday 25 September
morning: Gert Grobler, A J Mouton, President and J G Neubrech, Senior Vice President, Namibia Agricultural Union
Ms J Karuuombe, Ms Mary Mberirua, Ministry of Local Government and Housing, Community Development
afternoon: Ms A J Coetzee, Librarian, Ministry of Agriculture
Ms A Soroses, Directorate of Rural Development, Ministry of Agriculture
Mr L le Roux, Mr Rod Davies, Rossing Foundation

Thursday 26 September
morning: Richard Morgan, UNICEF
Dr R P Kraus, Dr Orrinda, Ministry of Health
afternoon: Mr L Mathieson, Mr P Hugo, Mr van Wyk, Mr S Steenkamp, Department of Agriculture, Extension
Mr Justin Ellis, Professor David Macharia, Ministry of Education, Distance Education Division.

Friday 27 September
morning: Ms A Shiweda, Directorate of Training, Ministry of Agriculture.

Saturday 28 September
morning: Dr Tony Dodds; Dr John Thomas, International Extension College (English Language Course)
Kerry McNamara (Zimbabwe extension materials)

Sunday 29 September
Piers Vigne (de-briefing)

APPENDIX D: SUBJECT AREAS IDENTIFIED BY MIDDLE LEVEL STAFF THROUGH DIFFERENT PROCESSES OF CURRICULUM DEVELOPMENT (Workshop paper)

I. CONTENTS APPROACH:

We expect the Extension Worker to know about ...

1. Basic agriculture:
   - agricultural economics
   - soil science
   - irrigation and drainage
   - farm management/systems/records/accounts
   - agricultural engineering - animal power/machinery/appropriate technology
   - agricultural support systems - marketing, credit, co-ops
2. Rural development
   - rural sociology
   - national agricultural/rural/development policies/plans
   - resource management and conservation
3. Crop production
   - plant science
   - field crops
   - vegetables
   - pests and diseases
   - storage and processing
4. Livestock production
   - animal husbandry/breeding - large - cattle/sheep
     small - goats/pigs/donkeys/ horses/game
   - animal health/vet science/animal science, physiology
     dairy science
   - pasture management
   - processing (hides and skins)
5. Diversification
   - agroforestry
   - fisheries
   - apiculture
   - fruit
   - game ranching
   - crafts
6. Extension
7. Research
   - data collection
   - adaptive research
   - analysis
   - report writing

Notes: Planning done by a) employers/managers/senior staff; and b) by trainers/SMS/researchers
curriculum reflects values of employers/trainers
curriculum tends to be traditional
curriculum tends to be academic, theoretical, compartmentalised.

II PRODUCT APPROACH

We expect the Extension Worker to be able to do ...

Farm management - pasture and rotation/ fencing/buildings
- Farm planning
- Irrigation systems
- Nature conservation/soil conservation/natural resources

Water

Crop production
- Field crops
- Pest control and diseases

Vegetable production
Horticulture, pomology, ornamental gardens

Livestock - breeding, production, culling, health
Pasture Management
Animal Disease
Poultry and small stock/pigs
Fish/bees

Extension
Extension Planning; plan courses and other events
Identifying and contacting farmers
Analysing situation/collecting information/ identifying good practice/ farming systems
Follow up new ideas
Links with other agencies
Motivating farmers
Communication/demonstration/training of farmers
Planning extension, holding meetings, publicising, use of media
Identification/analysis of and solving problems
Follow up/Record Keeping/monitoring and evaluation
Office Administration
Leadership, human relationships

III PROCESS APPROACH

We expect the Extension Worker to be:

natural
holding positive attitudes towards farmers, participatory, reliable, trustworthy, honest, responsible, loyal, obedient, professional
serious, persevering, disciplined
confident, mature,
self-critical
flexible, open to new ideas, creative
fair, impartial
motivated, hard working, committed, energetic
wants to keep up to date, keen to learn,
efficient
well mannered, polite, approachable, friendly, sociable, tactful, diplomatic, patient
strict,
persuasive,
aware,
taking the initiative

Therefore the CURRICULUM will include training in:

Leadership
Communication
Administration and planning
Human management
Sociology/psychology/human relationships
Culture, tradition and religion
Health and hygiene
Extension
Behavioural/social studies

APPENDIX E: CONSOLIDATED JOB DESCRIPTION.

I. This job description of the work of field level extension staff has been compiled by the middle level staff on the basis of responses from some 40 field level workers

NOTE: it is important to be clear that we are not suggesting that all field level workers do or should do all of these tasks; we are indicating that all of these tasks are done by some field level workers.

OUTREACH

- select, identify and contact/visit farmers
- discuss, listen
- perception of problems
- analyse the situation
- identify major issues
- identify existing successful practice
- hold meetings
- invite/recruit farmers to meetings/courses
- motivate farmers in crop/animal production etc
- help farmers to solve their problems
- collect information
- refer farmers' problems to other ministries etc as necessary
- collect information for farmers from other sources and pass it back to them
- encourage adoption of new ideas
- encourage farmers to keep records

FIELD WORK

- inspect and evaluate livestock
- pastures and fences for farmers
- identify and report diseases to vets
- make use of research of breeding station/irrigation scheme
- arrange auctions
- help farmers with culling and selection
- analyse soil
- measure farmers' lands
- arrange subsidies

PRACTICAL WORK

- castration, dehorning etc
- run demonstration plots/grow crops

FARMER TRAINING

- organise, plan and publicise short courses/educational tours
- conduct demonstrations
- conduct farmers days
- conduct meetings
- group discussions
- give lectures/talks
- get feedback
- organise agricultural shows
- radio talks/media publications
- organise follow up
- train farmers in marketing/co-ops/credit etc
- monitoring and evaluation

ADMINISTRATION

- have new ideas
- plan extension programme and work calendar
- control of transport

arrange inputs
keep records/write reports
stock control
supervise/control/support other staff and labourers
obey instructions/ undertake tasks as given/ help others with duties
attend staff meetings/in-service training

II. This job description has been compiled from the various job descriptions produced by the field level workers themselves

OUTREACH:

identify [choose] farmers
visit/travel to farmers
discussion with/listen to farmers
hold meetings;
recruit farmers to our courses; invite
identify their problems; ask about their problems; listen to their problems
help solve day to day problems and conflicts as they arise
receive problems from farmers and pass them through to the other ministries or department head responsible;
collect information for the farmers and pass it back to them

FIELDWORK:

inspect/evaluate (cattle, pasture, fences)
identify diseases, pests etc; suggest remedies; report to vets
count the livestock
culling and selection
collect grazing fees
test boreholes
inspect water supply
resettle farmers
issue diesel to farmers
issue prescriptions; sell veterinary medicines to farmers
arrange auctions
visit breeding stations/irrigation schemes; vaccination/castration centres;

PRACTICAL WORK:

grow vegetables - preparing, planting, maintaining
vaccination, castration, dehorning etc
establish a project
establish experimental plot at ADC
farm (on our farm)
measure farmers' lands and keep records
arrange subsidies when and where necessary

PLANNING

develop extension programme objectives
devise calendar of activities
monitoring and evaluation

FARMER TRAINING:

TEACHING:(in Centre)

plan courses
organise courses/events farmers days etc
promote courses and events; arrange publicity (publication; radio etc)
give lecture/talk to farmers
demonstrate; show them how;
get feedback (ask them if they understand; test them)

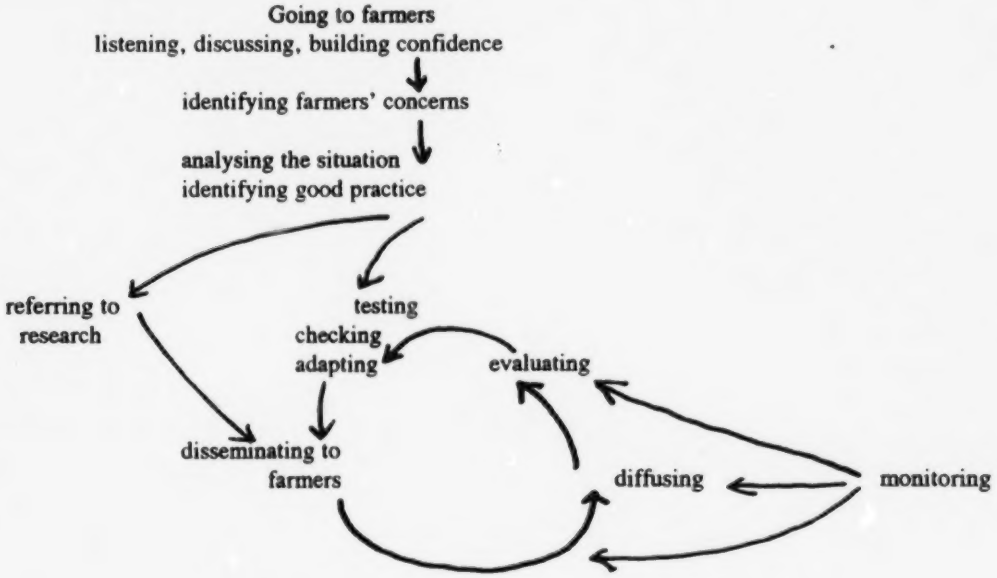
discuss
help them to remember
encourage adoption of new ideas
motivate them
    to follow the new ideas
    to come again
follow up in their homes
conduct farmers' days, meetings, group discussions, farmers shows, educational tours

TEACHING: (on their farms)
demonstrate
train
encourage them (to keep records)

RESEARCH
collect information from farmers
adaptive research
analyse situation
identify major issues and existing successful practice

ADMINISTRATION:
responsible for vehicle
responsible for parts of work of centre
assist other staff with other duties; do other jobs as required
obey instructions
keep records/write reports
supervise/control/support other staff
control stock (e.g. veterinary supplies)
attend staff meetings/ in-service training

Model of extension developed during the first training workshop as used in the participatory assessment of training needs workshops:

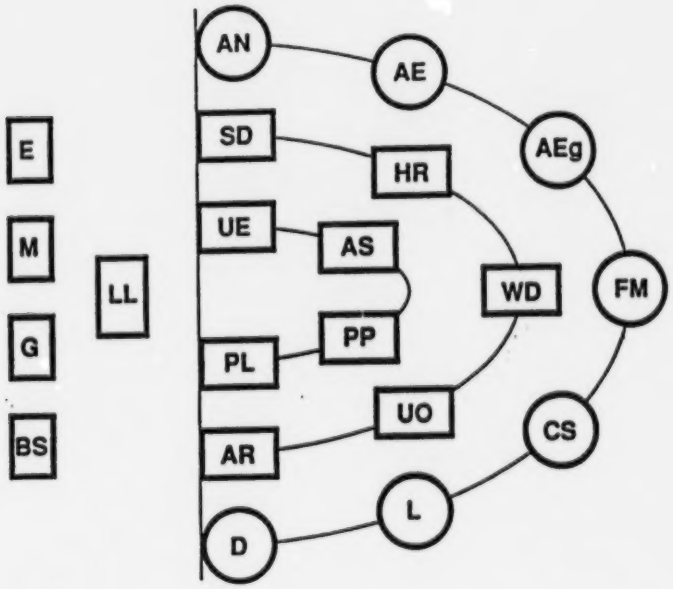


APPENDIX F: PROPOSED IN-SERVICE TRAINING PROGRAMME FOR FIELD LEVEL EXTENSION STAFF IN BOTH DISTANCE LEARNING AND RESIDENTIAL SHORT COURSE FORMAT

Notes:

1. This programme has been written for agricultural extension staff but it can be adapted to other extension staff.
2. This programme is suggested as a model which the consultant feels could work, but it will need to be adapted to the Namibian situation by others.
3. It is intended that each module will have links with other modules - some of these are indicated.
4. The course is based on the expressed training needs of field level staff and other factors, not on existing or future training programmes at Ogongo College.
5. Participants should be able to start where they like and finish where they like - but some modules clearly precede others - e.g. A1 (or its equivalent for other disciplines, e.g. health) might need to be taken before even E1.
6. Modules do not need to be all of the same length

Diagram to show relationship of modules:



E = English
M = Mathematics
G = Geography
BS= Basic Science

LL = Learning to Learn

UE = Understanding Extension
AS = Analysing the Situation
PP = Planning and Implementing the Programme
PL = Promoting Effective Learning

SD = Society and Development
HR = Human Relations
WD = Women and Development
UO = Understanding Organisations
AR = Adaptive Research

AN = Agriculture in Namibia
AE = Agricultural Economics
AEg= Agricultural Engineering
FM = Farm Management
CS = Crops and Soils
L = Livestock
D = Diversification

BASIC EDUCATION: it is anticipated that field level staff will equip themselves with basic English, Maths and Science normally covered at school; these are not included here as they will probably best be provided by MinEd. It has been suggested that this basic education should include the geography of Namibia - meeting with extension staff from other parts of the country revealed to the field level staff that they knew very little of their own country

PROGRAMME OUTLINE: the programme can have three tiers - extension (E); people and organisations and society (POS) ; and specialist subjects (A=Agriculture; similarly, CD could = Community Development; H=Health; RD=Rural Development; V=Veterinary etc)

TIER 1: EXTENSION - four modules

E1: <u>Understanding extension</u>

definitions
the context of extension - extension and development (POS1)
approaches, strategies, models of extension - participation
how to reach target groups - communication
options and issues in extension: equity

E2: Understanding the situation
- situation analysis
- farming/household etc systems
- know your area: socio-economic, political factors (POS1)
  culture, tradition
- assessing needs;
- community (POS3)
- collecting data (POS5)

E3: Planning and Implementing the Programme
- extension methods - mass, group, individual
- planning (POS4)
- activating the community
  organising events (demonstrations, farmers days etc) - communication
- implementing; budgeting
- writing reports (POS5)
- monitoring and evaluation
- collaboration with other agencies

E4: Promoting effective learning
- adult learning
- teaching-learning methods
- communication (E1,E3)
- demonstration (E3)
- dissemination of information
- barriers to learning
- follow up
- evaluation of learning

TIER 2: PEOPLE AND ORGANISATIONS IN SOCIETY

POS1: Understanding development
- rural sociology and change
- development approaches and objectives
- development strategies
- barriers to development
- participation (E1)

POS2: Women in development
- women in rural society
- women and change

POS3: Understanding human relationships
- inter-personal relations
- community, groups and associations
- leadership

POS3: Understanding organisations
- organisational theories - types of organisations
- management styles and climates
- managing staff
- managing change

POS4: Research
- on-farm research
- adaptive research
- participatory research (POS1, E1)
- data collection and analysis (E2)
- report writing (E3)

TIER 3: SPECIALISMS - AGRICULTURE

A1: Introduction to Agriculture in Namibia

- agricultural enterprises and regions (soils, climates, socio-cultural; socio-economic factors; infra-structure) -
- subsistence/communal/cash/commercial
- national agricultural policy and plans
- agricultural potential
- contribution of agriculture to GDP and GNP: to employment; to household food security and nutrition
- agricultural and natural resources: conservation: resource management
- constraints on family farming in Namibia

A2: Farm Management

- farm production systems (E2)
- farm planning - surveying; buildings; records and accounts
- water supplies and conservation (A1, A3)
- labour management (POS4)
- land management - fencing, rotation (A5,A6)

A3: Agricultural Engineering

- animal power
- tools, machinery and maintenance
- pump, pipeline maintenance
- appropriate technology
- irrigation and drainage (A1,A2)

A4: Agricultural Economics

- agricultural production and profitability
- business management principles (POS4)
- pricing systems, government controls/support
- marketing; credit
- co-operatives and farmers' associations (POS4)

A5: Crops and Soils

- soil science
- plant science and nutrition
- field crops - pests and diseases - storage and processing
- vegetables - pests and diseases - storage and processing
- seeds and selection
- water management (A1,A2,A3)

A6: Livestock

- animal science/physiology
- dairy science
- animal husbandry - breeding - large (cattle, sheep, game)
  small (goats, pigs, donkeys)
- animal nutrition
- animal health/veterinary science
- pasture management (regional variations)
- processing - skins, hides, wool etc

A7: Diversification (alternative enterprises)

- agro-forestry
- fruit, orchards; horticulture, ornamental gardens
- fisheries
- apiculture
- game (trophy) (A6)
- poultry
- rural crafts

APPENDIX G: ADVANTAGES AND DISADVANTAGES OF ON-THE-JOB AND OFF-THE-JOB TRAINING

(Workshop paper compiled by middle level staff)

I.	ON THE JOB		OFF THE JOB	
	Pro	Con	Pro	Con
	cheaper		economy?	more costly
	job can be continued			job unattended
	attendance assured			attendance uncertain
		interruptions		
		distractions	no distractions	
	easy to arrange		arranged by others	
	more control			less control
	more flexible			less flexible
	individualised			generalised
			wider horizons	
			meet other people	
			new experiences	
		limited resources	more resources	
			more academic - better specialist knowledge	
				too theoretical
		learner often isolated		learner away from home
	immediate application		delayed application	
	uses experience			difficult to build in experience
	practice possible			practice difficult
	continuous learning			one-off experience
	follow up easier			follow up difficult
	builds more self-confidence			
	more voluntary			usually directed to attend
			more competitive - better motivation	
		cannot provide for one person	course can send one person to course	
		will take up too much of my time.		

II. 1. Forms of on-the-job training:

Visiting expert and discussion
Reading - books, articles, journals, magazines
Discussion - individual/group
Staff meetings
Writing reports and discussion
Observation by supervisor
Supervised practice
Observation by field level worker
keep diary/log
read other reports
use /radio as basis of discussion
showing of films/videos to staff
make survey - individually or in groups
undertake project
try out a new task
work with a colleague

2. What we need for on-the-job training:
time
budget
transport
materials
information about visiting experts
information about books and journals etc
borrowing facilities
collection of materials in our office
more training in how to train and how to supervise.

3. What we need for off-the-job training:
- budget for travel/accommodation/subsistence/cost of course
- information - what courses are available/timetable/content/ objectives/where/when/how long/language/how many participants/ entry requirements/who are trainers
- trainers - training centres properly resourced/residential; trained trainers; training materials, aids
- link between middle level staff and trainers (two-way)
- authority to arrange training for field level staff
- links between middle level staff - telephone/fax; training section in Agriforum
- follow up to each training event - written report with action plan; discussions

more training in human relations and organisational management (managing staff)

APPENDIX H: PRELIMINARY LIST OF RESOURCE CENTRES FOR TRAINING

(Workshop paper compiled by middle level staff).
This provisional list provides a basis for a fuller list to be drawn up.

Production Farms
Koppieslaugte Farm (angora goats)
Pfannental Farm (woolled sheep)
Estcourt Farm (game)
Kalahari Dorper Farm (dorper sheep)
Aroulei Farm (cattle)

Research stations
Gellot-Ost, Keetmanshoop (karakul)
Kalahari Experimental Station, Stampriet (karakul)
Hardap Karakul Ram Testing Centre
Hardap Experimental Farm (agronomy)
Neudamm Research Station (karakul, grass etc)
Sandveld Research Station
Omatjeune Research Station
Uitkomst Research Station
Mounheim Research Station
Sonop Research Station
Mahanene Research Station

Agricultural Colleges and Centresa
Mashare
Neudamm
Ogongo
Tsumis

Breeding Stations

Sachinga Breeding Scheme
Mile 46
Okomunbonde Breeding Station

Development Centres
Tsumkwe
Otjimbingwe
Bagani

Training Centres
Brakwater (Rossing)
Luderitz (Rossing)
Okahandja (Rossing) (horticulture)
Okashana (Rossing)
Ondangwa (IMLT)
Ondangwa (Rossing)
Ongwadive (RDC)
Windhoek (Rossing)
Tucsin Training Centres

APPENDIX I: ADVANTAGES AND DISADVANTAGES OF DISTANCE EDUCATION
(Workshop paper)

Advantages

Economy - for a large number of learners in terms of teaching cheaper for learner/employer
Access - more people can participate than in residential training
Learning for the immediate environment; immediate application of new insights, not future
More control in hands of trainee and supervisor - learner can study what, when, where, in what sequence, at what pace
Use of learners' experience in learning; can be more practical, not just theoretical
Learner can practice new skills again and again until they are learned
Flexible - learner can study when he/she wants/is able to.

Disadvantages

Isolation of learners: lack of reaction/feedback; lack of interaction with other students; lack of advice about direction of learning
Reliance on self-discipline, self-responsibility
Delay in feedback on materials prepared

Most of the disadvantages can be alleviated by:
study centres; contact sessions; personal tutors/supervisors; networks of learners, newsletters.

APPENDIX J: OUTLINE OF SPECIMEN MODULES IN DISTANCE LEARNING IN-SERVICE TRAINING COURSE FOR FIELD LEVEL AGRICULTURAL EXTENSION WORKERS IN NAMIBIA (Workshop paper compiled by middle level staff, edited)

Each area of study is divided into COURSES, and each course into MODULES; the modules will (in most cases) have BLOCKS of study; and each block will have UNITS of study - the basic 'lesson'.

I. COURSE A4: LIVESTOCK
MODULE A4:3 ANIMAL HEALTH
STUDY GUIDE: study guide with set textbooks and additional material (extracts)
Objective of the module: at the end of this module, you will be able to help farmers to control animal health

UNIT 1: Diseases of animals
Objective: at the end of this unit, you will be able to
* identify common diseases in animals
* help farmers correctly to treat and prevent diseases
Content: introduction; symptoms; identify diseases; treatment (injection; dipping; dosing); isolation of sick animals; prevention (immunisation, pasture control).
Materials: set textbooks; videos, films and cassettes
Activity: identify common diseases in your locality and how farmers are treating them
Assignment: write an immunisation and dipping programme for all animals in your area;
or
write a report on how to identify common diseases - about 4 pages
You will need 20 hours for this unit

UNIT 2: Handling of animals
Objective: at the end of this unit, you will be able to help the farmers to learn to handle their animals
Content: how to handle; cattle; small livestock; pigs; horses
Materials: set textbooks; films and videos (available at Agriculture Library, Windhoek)
Activity: find out how farmers handle their cattle at the moment
Assignment: write a report on how to handle animals (4 pages)
or
plan a demonstration on handling cattle for your farmers; send the plan to your tutor.
You will need ... hours for this unit

UNIT 3: Fodder Supplies
Objective: at the end of this unit, you will be able to
* help farmers to make summer and winter licks;
* help farmers to survey and to plan grazing methods
Contents: intensive and extensive grazing; fodder systems; mixed fodder and licks
Activities: 1. make summer and winter licks
2. Mix fodder for intensive farming and make notes how you do it
3. Make a survey of local grazing methods
Assignment: Write a report on how to make summer and winter licks and mixed fodder
or
Write up your survey of grazing methods in your area
The reports must describe how you did these activities with the farmers (about 6 pages)
This unit will take you about .. hours

UNIT 4: Water Supplies
Objective: at the end of this unit, you will be able to help farmers use adequate water and water supply methods
Content: adequate water supplies; methods of water supply
Materials: textbooks (Library of Department of Water Affairs, Windhoek)
Activity: ask local farmers about methods of water supply and make notes; plan methods of water supply and discuss it with farmers.
This unit will take you about .. hours

II. COURSE A3: CROP PRODUCTION
STUDY GUIDE: STUDY GUIDE, RECOMMENDED READING AND OTHER MATERIAL
MODULE A3:6: MAIZE PRODUCTION

Objective: at the end of this module, you will be able to guide and advise farmers into the correct methods of growing and caring for maize. NOTE: this module should be spread over the whole of the growing season for maize if possible, from September to March.

BLOCK 1: Originating maize
UNIT 1: Introduction
Objective: at the end of this unit you will be able to answer questions about where maize originated and when it was discovered
Contents: definition; origin of maize
Materials: read books on maize production
Activity: in association with other field level staff, survey how much maize is grown in your area.
Assignment: write a story of maize, not more than one page
This unit will take you .. hours

UNIT 2: Growing conditions
Objective: at the end of this unit, you will be able
* to identify suitable conditions for maize
*. take soil samples
Content: soil requirement; methods of taking soil samples; climate requirements
Materials: books on methods of soil samples (see other courses); slides on taking soil samples
Activity: take soil samples from different fields of farmers in your area and send to laboratories
Assignment: write briefly how you went about taking soil samples and the results of your survey
This unit will take you about .. hours

BLOCK 2: Establishing Maize
UNIT 3: Land Preparation
Objective: at the end of this unit, you will be able to choose the appropriate methods of soil preparation and times of ploughing and advise the farmers
Contents: clearing the field; ploughing (time; depth; methods - animal, tractor, hand); harrowing for soil tilth (hand, animal, tractor)
Materials: books on animal power, tractors and hand cultivation; video on ploughing and harrowing
Activity: observe farmers ploughing; note their time and methods and discuss with them
This unit will take you .. hours

UNIT 4: Fertilization
Objective: at the end of this unit you will be able to determine which fertilizer to use in your area.
Contents: chemical fertilisers (basal, before planting; top dressing after germination; the quantities used); manure (kraal, green)
Materials: extracts on chemical fertilizers and manures; videos showing methods of applying fertilisers
Activity: find out from farmers whether they use fertilisers or not and why and how.
This unit will take you .. hours

UNIT 5: Planting of maize
Objective: at the end of this unit, you will be able to teach farmers about the spacing and depth of planting maize
Content: time of planting; spacing; depth; methods of planting; type of seeds used; germination percentage
Materials: extracts on maize cultivation and methods of planting and spacing; video showing different spacing methods
Activity: interview with farmers on time of planting and methods used, on depth of planting and reasons for these.
This unit will take you about ... hours

BLOCK 3: Maintaining growth
UNIT 6: Weed control and thinning out

Objective: at the end of this unit, you will be able to identify the appropriate time and methods of controlling weeds.
Contents: effects of weeds on maize crops; kinds of weeds; chemical, mechanical and manual control; thinning
Materials: books, bulletins on use of chemical and other methods of controlling weeds; slides and videos on how to use chemicals
Activity: observe farmers' methods of weeding; time; and type of chemicals used
This unit will take you about .. hours

UNIT 7: Pest and Disease Control
Objective: at the end of this unit, you will be able to identify different kinds of diseases and pest in maize and methods to control them
Contents: types of pests and diseases; effects of pests on crops; methods of control; crop rotation
Materials: books on pests, diseases and chemicals and crop rotation; slides and photographs of pests and diseases
Activities: interview farmers which pests and diseases are prevalent in your area; which methods they use to control diseases and pests.
Assignment: write short notes about the prevalent pests and diseases in your area; how would you go about controlling them? 2 pages
This unit will take you about .. hours

UNIT 8: Deficiency symptoms
Objective: at the end of this unit, you will be able to differentiate different kinds of deficiency symptoms
Contents: indicators of hunger in maize; effects on crop growth and yields
Materials: books and pamphlets on hunger symptoms in maize; photographs and slides of hunger signs
Activity: interview and discuss with farmers the common deficiency symptoms in your area; and observe for yourself deficiency in the farmers' lands.
This unit will take you about .. hours

III. COURSE E6: HUMAN RELATIONSHIPS
STUDY GUIDE: study guide with extracts
LIST OF MODULES;
M1: Definitions
M2: Leadership
M3: Groups
M4: Collaboration
M5: Staff Relationships

MODULE M2: LEADERSHIP.
Objective: at the end of this module, you will be able to encourage the development of leaders in your community.

Unit 1: Characteristics of leadership
Objective: at the end of this unit, you will be able to identify the characteristics of a leader
Contents: diplomatic; decision-making; creative; responsible; energetic
Materials: extracts from textbooks; newspaper and journal articles on official opening of new projects etc; videos on conferences, rallies speeches, demonstrations, etc; extracts from films.
Activities: read extracts and make a list of the characteristics of leadership of some contemporary leaders
This unit should take you .. hours

Unit 2: Study of Leadership
Objective: at the end of this unit, you will be able to explain to others what leadership is
Contents: definitions of leadership; importance of leadership: the basis of leadership in different cultures; leadership styles (democratic or autocratic)
Materials: same as above
Activity: go to local meetings to compare and contrast styles of presentation of speeches
Assignment: write a report on your understanding of leadership with special reference to democratic leaders and dictators (4-6 pages)

You will need .. hours for this unit

Unit 3: How to work with people in the community

Objectiv : at the end of this unit, you will be able to contact people of different characters more easily

Contents: analysing the community (links with other units in the course); culture, traditions; identifying community problems; delegation to others in decision-making

Materials: extracts; local television and radio programmes

Activities: contact different people (in terms of rank, character, culture etc) in your local community to identify their problems

Assignment: send in your notes of the problems identified and the process by which you identified these problems

You will need ... hours for this unit

APPENDIX K: SOME OF THE BOOKS AND MATERIALS CONSULTED DURING THE WORKSHOP

Distance learning examples

Rural Development (six units published by Indira Gandhi National Open University, Delhi)
Management Studies (two units ditto)
Distance Education (three units ditto)
Distance Learning ed H Perraton and Roger Lewis, study guide and extracts published by Surrey University DPE course Module K 1985
Curriculum and Course Design, study guide and extracts published by Surrey University DPE Module 03 1990
Crop Management, Grassland Management, and Crop Production Science, three units produced by Agricola, UK
Insiders Guides: Spring cereals and Sheep, two guides produced by Agricola
Learning about learning, module P510 study pack, selected readings with videos produced by Open University, UK.
Preparing to Study (Open University Press 1979)

Materials concerning distance education

J Jenkins (ed) Course Development, a manual for editors of distance teaching materials published by Commonwealth Secretariat and International Extension College 1985
Distance Teaching at the University of Ottawa, some reflections, P Pelletier and D J McDonell (unpubl paper Oct 1989)

Materials related to extension

C Garforth, Agricultural Extension in Anglophone Africa, from Vocational Training ed J Twining (Kogan Page 1989)
Hawkesbury Agricultural College introduction to courses 1986.
[Agritex] Training Policy 1987, Agritex, Zimbabwe
National In-Service Training Programme, 1991/2, Agritex
M B K Hakutangwi, Training Strategies for Effective Operations, Agritex 1990.
Extension Methods: Trainers' Manual, Agritex 1987
Agritex News and Views 1990

Materials relating to distance education and agricultural extension

J Jenkins and H Perraton, Training Farmers by correspondence in Cameroon (IEC 1982)
Potential for Distance Teaching in Agriculture, Commonwealth Secretariat.

Miscellaneous

Towards an alternative development paradigm, Md Anisur Rahman, IFDA Dossier 81 (Apr-Jun 1991) pp 17-28
[CD] Curriculum Development in the Education of Adults, a manual for practitioners, A Chadwick and D Legge (FEU 1984)

Materials relating to Namibia

[COL] Distance Education in Namibia, a concept document prepared by the Commonwealth of Learning, July 1991
[Concept] Concept Document on a Distance Education College for Namibia (Min Educ. Windhoek 1990)
[Health] Executive Summary on PHC/CBHC Regional Awareness Workshops, Ministry of Health 1991.
Situation Analysis of Children and Women in Namibia, UNICEF and NISER 1991
G Gobler, NAU Involvement in Agricultural Development in Namibia, NAU 1991
Education in Namibia, report of consultancy by John Turner, 1990
Distance Education in Independent Namibia, report of a feasibility study by International Education College (Dr Tony Dodds).
[Rolls] Development of Agricultural Extension in-service training and of Diplomas level training at Ogongo Agricultural College, Namibia, report of a consultancy mission June-July 1991, M J Rolls (AERDD)
[Wake] Agricultural Extension Training, report of a consultancy mission for MAWARD Jan 1991, M R

Wake (Education for Development)
[Prospectus] Prospectus of Diploma and Certificate Programmes of Ogongo College
[Policy] First Draft of the national agricultural plan 1991-93: policy statement, Ministry of Agriculture January 1991
[PP] Training of Agricultural Sector Personnel, project proposal to the Commission of the European Community 1991
[Nepru] Agricultural Research, Extension and Training: structures and strategies in Independent Namibia, ed K Kahuure and P Vigne (NEPRU 1990)
[WUS] Agricultural Education and Training in Independent Namibia (WUS Denmark) 1990

REPORT ON THIRD TRAINING WORKSHOP FOR MIDDLE LEVEL EXTENSION STAFF AT OGONGO COLLEGE, SEPTEMBER 1991.

1. As requested **EDUCATION FOR DEVELOPMENT** provided a training workshop for selected middle level agricultural extension staff on the in-service training needs of field level staff; this was a continuation of the former workshop held in August.

1.2. The staff involved were Professor Alan Rogers and Dr Ruth Urben of **Education for Development**. Dr Peter Jarvis of the University of Surrey was unable to join the team at the last moment, but it proved possible to fulfil most of the programme with some adjustments - though the loss of Dr Jarvis' experience, especially in the practice of distance learning, was regrettable.

1.3 Twelve of the former participants took part in this workshop together with one new person Martin Embundile from Ondangwa who had been prevented from joining earlier by a car accident (see App. A). Some of the participants arrived late or were absent from parts of the training course for several reasons -

* some were called away by senior staff for what these staff regarded as more important duties - it is clear that training is regarded by some senior as a second tier activity, not a first line duty
* some were ill
* some were away for short periods to deal with matters (such as banks and garages) which could not be dealt with at Ogongo because of the remoteness of the college - a factor which needs to be borne in mind when planning future training events.

2. **TERMS OF REFERENCE**

2.1 The terms of reference are set out in App. B

3. **MIDDLE LEVEL STAFF TRAINING COURSE: TIMETABLE**

3.1 The times of sessions were altered to provide for a slightly later start to the day, shorter lunch break and longer afternoon sessions. The total working day was longer.

3.2 The programme was as follows:

TUESDAY 10 SEPTEMBER

Session 1:

The objectives of the workshop were agreed - to plan a training programme for field level staff for the next two years. Reports on the assignments undertaken by the middle level staff during the intervening period were presented and discussed.

Session 2: more reports

Session 3: Introduction to the three main approaches to curriculum development - the **content** (top-down) approach; the **product** (job description) approach; and the **process** (professional staff) approach. Groupwork on the 'content' approach

WEDNESDAY 11 SEPTEMBER

Session 1: reports from two more participants; discussion about the relative importance of training against other commitments and the importance of training to our superiors.

Revision of the three different approaches to curriculum development; group work on the 'product' approach. Development of a job description.

Session 2: Group work on training needs based on job description

Session 3: Group work on 'process' approach. Discussion of Freire's approach to education, the failure of the banking approach to education, the need to promote learning how to learn and the learning cycle (critical reflection on experience).

Session 4: Report back followed by group work on training programmes needed. General discussion on the need to determine priorities in training.

THURSDAY 12 SEPTEMBER

Session 1: Comparison of the three lists of curricula. Groupwork on extension elements to see what is involved

Session 2: Report back from groups and list of extension elements compiled.

Session 3: Groupwork to compile a consolidated list of training areas with some indication of sequence, weighting, and whether they should be taken by all or only some field level staff.

Session 4: Formats of training - on-the-job and off-the-job followed by group work. Finalising the training programme and reporting back.

FRIDAY 13 SEPTEMBER

Session 1: Individual work on identification of training needs within training areas in the light of the assignments completed between the two workshops. Reports

Session 2: Setting training objectives based on assessed training needs.

Session 3: Building the programme: linear programmes; core/option programmes; modular programmes. Discussion on value of each approach, and whether all field level staff need take all subjects. Making a programme out of varied training felt needs.

Session 4: Groupwork on building a two-year programme.

Task set for the weekend: to list training objectives in each of the training areas they had identified in their assignments.

MONDAY 16 SEPTEMBER 1991

Session 1: Reports on task. Report on training 'wants' indicated by field level staff (see below). Finalising the two year programme in groups.

Session 2: Discussion on requirements to fulfill off-the-job training.

Session 3: Formats of and requirements for on-the-job training (groupwork). Discussion on how to turn activities into training activities - by i) feedback to field level staff a) on the basis of critical reflection on their activities and b) in the light of new knowledge etc; and ii) opportunity for practice.

Session 4: Advantages and disadvantages of distance education. Materials for distance learning: study guide and materials. Groups took three case studies to work on.

TUESDAY 17 SEPTEMBER

Session 1: Discussion of final programme of suggested two year course (see App. C)

Session 2: Introduction to activities (relating material to the learners' experience) and assignments (marked pieces of work). Work in groups on activities and assignments of the three case studies.

Session 3: use of Open University video to illustrate use of other media in distance education - videos, slides, visual material, cassettes etc. Work in groups on units incorporating other materials.

Session 4: further work in groups and final report back from groups.

WEDNESDAY 18 SEPTEMBER

Session 1: Work in groups on the three case studies. Discussion on what support the students in distance education will need especially contact sessions.

Session 2: Further group work.

Session 3: Preparation by middle level staff for teaching session with field level staff on models of extension.

THURSDAY 19 SEPTEMBER
Sessions 1 and 2: review of three pilot modules

Session 3: final preparation for teaching field level staff

Session 4: teaching of field level staff followed by review and evaluation of this session.

Evening assignment: review your own training needs.

FRIDAY 20 SEPTEMBER
Session 1: reports on their own training needs and whether on-the-job or off-the-job

Session 2: Evaluation of workshop (written); discussion of where do we go from here: list of actions they would undertake.

4. EVALUATION

4.1 We were very heartened by the enthusiasm which the middle level staff showed in all the tasks of this workshop; there were clear signs f a growth in understanding and personal confidence throughout the two weeks.

4.2 The books were well used during this period, and most of the middle level staff indicated their desire to prchase copies of some material for their own use eiher in their offices or personally. e agreed to bring the list of orders to the attention of the Ministry of Agriculture who will we gather facilitate these purchases. The desire for further self-improvement by these staff is very strong.

4.3 We took two more books and one more video pack to the college; also a set of AERDD Bulletins (20-30). Several of the videos were shown to all the extension staff. Arrangements were made for some participants to view videos on most evenings. However, the college is not well equipped with black-out facilities and the equipment is already showing signs of lack of maintenance - some training in AVA maintenance would seem to be needed.

4.4 Most of the working documents produced by this group and some of those produced by the field level staff have been used in the compilation of the consultancy report on the development of a programme of in-service training for field level staff with special reference to distance learning materials.

5. FIELD LEVEL TRAINING PROGRAMME

5.1 As requested, a number of training sessions on extension were held with the 31 field level staff attending the winter school session. These were well appreciated as the evaluation indicated.

5.2 Most of the work was done in regional and language groups. The largest group was from Owamboland and the results of the working sessions were influenced by this weighting.

5.3 The timetable of these sessions was as follows:

Tuesday 10 September
Session 1: 10.30-12.30; 4.00-5.00: Introductions; definitions of extension (RU). Activities and problems of field level staff (RU) (problems were ranked as an evening assignment according to their importance - see Main Report App. B)

Wednesday 11 September
Session 2: 9.00-1.00; 2.00-3.30: Approaches to extension; decision-making; diffusion of innovations through the community; models of extension (with reference to the first training workshop). (RU)

Thursday 12 September
Session 3: 9-10.30; 11.00-12.30: Extension and development; setting objectives in extension; three models of extension, directive, responsive and interactive; developing increased control and influence through extension. Working with community. Completion of training questionnaire. (AR)

Friday 13 September
Session 4: 10.30-12.30: Situation analysis; farming systems; Rapid Rural Appraisal (RU)

Monday 16 September
Session 5: 2.00-3.30: Extension methods, individual, group and mass; use of farmers groups (e.g. Zimbabwe). (RU)

Tuesday 17 September
Session 6: 2.45-4.45: Demonstrations; Kenya video used as basis for discussion. (RU)

Wednesday 18 September
Session 7: 9.00-10.30; 2.00-4.45: Feedback from their questionnaires; discussion of need for in-service training and their preferences. Teaching-learning methods in extension; differences between teahig children and teaching adults; active learning; learning styles; barriers to learning (lack of knowldege; situational barriers; attitudinal barriers). (AR)

Test set as homework.

Thursday 19 September
Session 8: 1.15-2.00: Women and development; use of slide show on women in agriculture in Sudan.(RU)
Session 9: 2.00-2.45: Model of extension as developed in first training workshop: Middle level staff took this session by presenting the model and then discussing it in groups.
Final session reassessing the definitions of extension developed in the first session.

6. COMMENT AND EVALUATION

6.1 The course sought to build on the work of the first workshop conducted by the AERDD of the University of Reading. This group of field level staff were motivated and very able - they worked hard and the task they undertook for the 'test' was well done.

6.2 We noted that the women extension workers seem to have received much less training than their male counterparts - perhaps a sign of unintended discrimination.

6.3 The field level staff were aware that the training they had experienced in extension was only a beginning and there was high motivation for more of this rather than the blanket training in agricultural subjects. Areas not covered included programme planning and implementing; monitoring and evaluation; society and culture.

APPENDIX A: LIST OF PARTICIPANTS

Veikko Imalwa
Albert Izaaks
Rebecca Kakongo
Reino Aisinde
Erastus Aueno
Alex Endunde
Martin Embundile
Rosemary Sheehama
David Mbemba
Milunga
Carlos Hamitungwi
Frans Itepu

APPENDIX B: TERMS OF REFERENCE

Part II - 8 - 28 September, 1991:

The Consultant will:

1. plan and deliver a two week workshop for selected agricultural extension and agricultural training staff in the preparation of a distance learning programme for agricultural extension (and possibly veterinary) field staff. This will include:

- reviewing the training and personal development needs assessment assignments undertaken following Part I of the Consultancy;

- outlining the principles of writing teaching - learning materials;

- identifying staffing needs and roles;

- preparation of one or two pilot modules.

2. contribute to a four month training course for approximately 40 field agricultural extension staff (as agreed with the Director of Studies, Ogongo Agricultural College) on the principles and practice of agricultural extension. The Consultant will be responsible for ensuring that the content of this course is the same as that delivered to the previous in-take of agricultural extension field staff through a previous consultancy and Part I of this Consultancy (ref. Part I, t.o.r.2). The Consultant will contribute at least six man days of agricultural extension training to this course;